Oil, Paint and Drug Reporter

VOL. LXVIII. No. 16. NEW YORK, MONDAY, OCTOBER 16, 1905. FOR RATES SEE PAGE 7.

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Directory for Buyers.

This list gives the names of representative manufacturers, importers and large dealers in chemicals, drugs, oils, paints, dyestuffs, fertilizers, naval stores and allied trades. It also includes the names of manufacturers of machinery pertaining to these industries. Complete addresses can be obtained from the advertisements, an alphabetical list of which appears on page 5.

Kindly mention the Oil, Paint & Drug Reporter when writing to its advertisers.

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J. L. Hopkins & Co., N. Y.

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Cawley, Clarke & Co., Newark
Fuerst Bros. & Co., N. Y.
Gabriel & Schall, New York.
Harrison Bros. & Co., Phila.
Morris Herrman & Co., N. Y.
A. Klipstein & Co., N. Y.
Kuttroff, Pickhardt & Co., N.Y
Bruno Lampel, Cologne, Germany.
Merrimac Chem. Co., Boston.
Schroeder & Stadelman, Oberlahustein, Germany.
G. Siegle Co., N. Y.
R. J. Waddell & Co., N. Y.
The S. P. Wetherill Co., New York and Philadelphia.
C. K. Williams & Co., Easton, Pa.

Dyestuffs.

Arnold, Hoffman & Co., Providence.
Ernst C. Bartels, N. Y.
Berlin Aniline Works, N. Y.
C. Bischoff & Co., N. Y.
F. Bredt & Co., New York.
Cassella Color Co., N. Y.
De Bruenn Chem. & Dyestuff Co., N. Y.
Fuerst Bros. & Co., N. Y.
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Kuttroff, Pickhardt & Co., N.Y
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H. A. Metz & Co., N. Y.
Schoellkopf, Hartford & Hanna Co., Buffalo and N. Y.

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Kuttroff, Pickhardt & Co., N.Y
John D. Lewis, Providence.
G. H. Leonard Co., Boston.
Schoellkopf, Hartford & Hanna Co., Buffalo and N. Y.

Essential Oils.

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Antoine Chiris, New York.
W. J. Bush & Co., Inc., N. Y.
Dodge & Olcott, New York.
P. R. Dreyer Co., N. Y.
Fuerst Bros. & Co., N. Y.
D. W. Hutchinson, N. Y.
Lehn & Fink, New York.
Magnus & Lauer, New York
McKesson & Robbins, N. Y.
Schieffelin & Co., New York.
Sozio & Andrioli, Grasse, France.
A. M. Todd, Kalamazoo, Mich.

Ethers.

Billings-Clapp Co., Boston.
W. J. Bush & Co., Inc., N. Y.
Chas. Cooper & Co., N. Y.
Geo. A. Erkenbrach, N. Y.
Heyden Chem. Works, N. Y.
Magnus & Lauer, N. Y.
Powers, Weightman & Rosengarten, Phila.
Warner Chem. Co., N. Y.

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Chilean Nitrate Wks., N. Y.
Fuerst Bros. & Co., N. Y.
Heller, Hirsh & Co., N. Y.
Lister's Agri. Chem. Works, New York.
German Kali Works, N. Y.
H. H. Salmon & Co., N. Y.
Geo. F. Taylor Co. N. Y.

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Am. Linseed Co., New York.
Albert Dickinson Co., Chicago.

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Fries Bros., New York.
Fuerst Bros. & Co., N. Y.
Heyden Chem. Works, N. Y.
A. Klipstein & Co., N. Y.
Merck & Co. New York.
H. A. Metz & Co., New York.
Perth Amboy Chem. Works, New York.
Roessler & Hasslacher Chem. Co., New York.
Schoellkopf, Hartford & Hanna Co., Buffalo and N. Y.
John C. Wiarda & Co., Bikn.

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Geo. G. Blackwell, Sons & Co., Liverpool.
Fuerst Bros. & Co., N. Y.
Geo. F. Taylor Co., N. Y.
R. J. Waddell & Co., N. Y.
W. H. Whittaker, New York.

Fusel Oil.

Albany Chem. Co., Albany.
Maas & Waldstein, N. Y.
Schoellkopf, Hartford & Hanna Co., Buffalo and N. Y.

Gelatine Capsules.

H. Planten & Son, N. Y.
Billings-Clapp Co., Boston.

Glauber's Salts.

American Chem. Co., Cinn., O.
Cochrane Chem. Co., Boston.
General Chem. Co., N. Y.
Grasselli Chem. Co., Cleveland and New York.
Hecla Compressed Gas Co., Chelsea, Mass.
Wm. F. Jobbins, Aurora, Ill.
Merrimac Chem. Co., Boston.
Powers, Weightman & Rosengarten, Phila.
C. E. Sholes Co., New York.
Thomsen Chem. Co., Balto.
John C. Wiarda & Co., Bikn.

Glue & Gelatine.

Lister's Agri. Chem. Works, New York.
Mich. Carbon Works, Detroit.
Rogers & Pyatt, New York.

Glycerine.

Fuerst Bros. & Co., N. Y.
Grasselli Chem. Co., Cleveland and New York.
Harshaw, Fuller & Goodwin Co., Cleveland.
Wm. F. Jobbins, Aurora, Ill.
Marx & Rawolle, New York.
Powers, Weightman & Rosengarten, Phila.
Procter & Gamble Co., Cin'ti.
Phil. Segaller, New York.
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Geo. G. Blackwell, Sons & Co., Liverpool.
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Arnold, Hoffman & Co., Providence.
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Fuerst Bros. & Co., N. Y.
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A. Klipstein & Co., N. Y.
Lehn & Fink, New York.
Magnus & Lauer, New York.
McKesson & Robbins, N. Y.
Parke, Davis & Co., N. Y.
Schieffelin & Co., New York.
Thurston & Braidich, N. Y.

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Cochrane Chem. Co., Boston.
Grasselli Chem. Co., Cleveland and New York.
Hecla Compressed Gas Co., Chelsea, Mass.
A. Klipstein & Co., N. Y.
Kuttroff, Pickhardt & Co., N.Y
James Lee & Co., New York.
Merrimac Chem. Co., Boston
Roessler & Hasslacher Chem. Co., New York.
The Selling Co., New York.
Thomsen Chem. Co., Balto.

Indigo.

Arnold, Hoffman & Co., Providence.
General Chem. Co., N. Y.
A. Klipstein & Co., N. Y.
Kuttroff, Pickhardt & Co., N.Y
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Atlantic White Lead and Linseed Oil Co., New York.
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National Lead Co., New York
National Lead & Oil Co., Pittsburgh.
Spencer Kellogg Co., Buffalo.
A. L. Webb & Sons, Balto.

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Grasselli Chem. Co., Cleveland and N. Y.
Gabriel & Schall, N. Y.
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Stanley Jordan & Co., N. Y.
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A. Klipstein & Co., N. Y.
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Job, Elbert & Co., N. Y.
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W. A. Robinson & Co., New Bedford, Mass.
Young & Kimball, New Bedford, Mass.

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Merck & Co., New York.
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Powers, Weightman & Rosengarten, Phila.

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Chas. Cooper & Co., N. Y.
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Merrimac Chem. Co., Boston.
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Penna. Salt Mfg. Co., Phila.
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Wegelin & Wilckes Black Mfg. Co., New York.
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Chilean Nitrate Works, N. Y.
Heller, Hirsh & Co., N. Y.

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Grasselli Chem. Co., Cleveland and New York.
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Kuttroff, Pickhardt & Co., N.Y
Merrimac Chem. Co., Boston.
Moro-Phillips Works, Phila.
Penna. Salt Mfg. Co., Phila.
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P. F. Campbell, Phila.
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Kaestner & Co., Chicago.
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Raymond Bros. Impact Pulverizer Co., Chicago.

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Jenkins Bros., New York.
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Steam Jacket Kettles.

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D. R. Sperry & Co., Batavia, Ill.
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MACHINERY INFORMATION DEPARTMENT, page 23.

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NEW YORK, OCTOBER 16, 1905.

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N. P., O. AND V. A. MEETING.

The eighteenth annual meeting of the National Paint, Oil and Varnish Association, held in the City of Chicago on Tuesday, Wednesday and Thursday of last week, was not only very fully attended, but the interest shown by those in attendance was unflagging. While a large part of the three days was given over to social features and the entertainment of the visiting members, a large amount of business was considered and disposed of. This was made possible by the close application of the members during the several sessions and by the system adopted by this association in having new business of importance presented by local clubs embraced in the national organization. In this manner the subjects presented come in proper shape for intelligent consideration and prompt action and are readily disposed of, as the members come fully informed by reason of previous discussion in the local clubs. As we present a full stenographic report of the proceedings in this issue we make no attempt to summarize or to point out special features, but commend the report to the careful perusal of every one connected with these trades. The time required will be profitably employed. Another feature, common to all trade associations, the reports of committees, is deserving of special mention here. These have been prepared with unusual care and the writers show they are thoroughly competent to deal with the subjects allotted them, and their recommendations have received the indorsement of the association.

The social features provided by the Chicago members were on a most elaborate scale, the time of all being fully occupied from Tuesday morning until Thursday night, before and after the business sessions, and while the members were engaged with the more serious objects of their visit the ladies were entertained most heartily by their Chicago hostesses.

The officers elected to serve during the year ensuing were:—

President—C. D. Wettach.

Vice-Presidents—Ira D. Washburn, A. S. Somers.

Secretary—L. L. Drake.

Treasurer—J. P. Boydell.

Pittsburgh was selected as the place for holding the next annual meeting.

SUSTAINED TENDENCY OF MENTHOL.

The developments of the week in menthol have been conducive to a further manifestation of strength, and there is apparently nothing in the situation to suggest any early reaction from the upward course of values. Occasional lots have been taken during the week below $2.75, and while this quotation might apply to limited quantities on consuming inquiries, $3 is a general asking price at this writing, and the range extends to a level that exceeds the record value of $8 touched in January, 1903. The markets abroad have undoubtedly furnished the chief stimulus to the sustained tendency on spot, and the predictions of a $4 basis during the next few weeks are repeated with undiminished emphasis. For October-November shipment from Japan up to nearly eleven shillings has been named, but we are advised of a sale in this position during the week at eight shillings and nine pence, in conjunction with a lot of Japanese peppermint oil. The principal holders in Japan have been insisting upon the purchase of the oil with menthol, with the hopes of establishing a better market here for the oil, which, under usual conditions, finds comparatively little favor with local dealers. London cable advices have denoted an advancing tendency there, with buyers' views reported up to nine shillings. This basis would seem to warrant $3 on spot. Local stocks are believed to be ample for current requirements, but few holders are in a position to enter the market to advantage around the present selling level. There is said to be a considerable part of local holdings that ought to command $4 to show even the closest profit. In this connection it may be of interest to show the widely fluctuating course of the spot market since March, 1904, when the weakening course of values was initiated, continuing until it was checked last June, as follows:—

March, 1904	$6.00	January, 1905	$2.50
	5.85		....
	5.80		....
	5.75		2.40
April	5.85		2.25
	5.50	February	2.25
	5.40		....
	5.35		....
May	5.35		....
	....		....
	5.25	March	2.25
	5.10		2.20
June	5.00		2.15
	....		....
	4.90	April	2.10
	....		2.05
July	4.75		1.95
	4.50	May	1.85
	....		....
	4.35		1.80
August	4.25		....
	4.15	June	1.80
	4.00		....
	....		1.75
	3.75		1.80
September	3.40	July	1.85
	3.00		....
	....		1.95
	3.10		2.10
October	3.10	August	2.25
	....		2.35
	....		2.20
	3.00		....
November	2.90	September	2.10
	....		2.30
	2.75		....
	2.60		2.35
December	2.50	October	2.40
	....		2.75
	....		....
	....		

The following summary indicates the highest and lowest points touched during the years from 1892 to 1904:—

Year.	H.	L.	Year.	H.	L.
1903	8.00	5.25	1897	4.20	1.85
1902	7.00	3.80	1896	4.75	2.50
1901	4.75	3.50	1895	4.75	4.00
1900	3.90	2.35	1894	6.00	4.50
1899	3.00	2.10	1893	4.75	3.25
1898	2.60	2.00	1892	4.00	2.25

STATISTICAL POSITION OF GAMBIER.

Apparently there is little encouragement for any material improvement in the gambier situation, which, as noted in our late market reports, has manifested an easier tendency for shipment, with a reflection on arrival and spot values. Judging from the extent of the arrivals so far this year, aggregating 102,000 bales, an excess of 24,000 bales over those of the corresponding period last year, it would seem that consumers' wants have been fairly well covered. It is true that there has been an increase in the deliveries for consumption during the first nine months of the year, the total for this period being 112,000 bales, against 99,000 bales during the same interval in 1904. On the basis of the former total, the monthly average so far this year is 13,555 bales, against 10,837 bales during the same period in 1904, but the closing months of this year are likely to bring the monthly average to one approaching that of last year. The visible supply to December 1 is placed at 30,500 bales, nearly twice that of the corresponding period in 1904, but if the monthly consuming average of about 13,000 bales could be maintained during this interval, the extent of the above quantity would occasion little concern to local dealers. The substantial increase in the shipments here so far this year has been the subject of considerable comment, as it was not generally supposed that the outlet had been of sufficient volume to warrant such a gain. Competition has been especially keen this year in the local trade, and dealers have been much more disposed to guard their sales than in former years, when almost every transaction went the rounds of the trade as soon as it had been effected. The speculative tendency of gambier seems to be on the wane, and local values have been less susceptible of fluctuation during the last year than during any year within our record. The following summary of high and low prices may be of interest to show within what narrow range quotations have fluctuated so far this year, as compared with the record of late years:—

	1905.		1904.		1903.		1902.	
	H.	L.	H.	L.	H.	L.	H.	L.
Jan.	4¾	4½	5¼	5¼	5¾	5¾	7⅛	7
Feb.	4¼	4¼	5¼	4¾	5¾	5¾	7	5⅞
March.	4¼	4⅛	4½	4½	6½	6	5¾	5¼
April	4¼	4¾	4¾	4¾	6¾	6½	6	6
May	4¼	4⅛	4¾	4¾	6¾	6¼	6	6
June	4½	4¼	4¾	4¾	6¼	5.90	6½	6
July	4½	4¼	4½	4	5¾	5.60	6¼	6¼
Aug.	4½	4¼	4¼	4	5⅝	5¾	6½	6¼
Sept.	4¼	4¼	4½	4	5⅞	5¾	6¼	6¼
Oct.	4¼	4⅛	4¾	4¼	5⅝	5⅜	6½	6¼
Nov.	..	..	5	4⅞	5½	5⅜	6¼	6
Dec.	..	..	5	4¾	5⅝	5¼	6	5¾
Year.	..	..	5¼	4	6¾	5¼	7⅛	5¼

NAVAL STORES BOOMING.

Developments in the naval stores market have been of a most interesting nature, and the situation is rather perplexing to the trade, owing to the further skyward movement in prices, with no signs for an immediate cessation. Indications point to a probable repetition of high record prices for both spirits of turpentine and rosins, which took place early in June this year, when the new combine of naval stores at Jacksonville, Fla., started a crusade against another combine in Savannah to get control of the output of naval stores for this season. These efforts have been again renewed with vigor during the past six weeks and prices have steadily advanced, showing a gain of about thirteen cents per gallon here and in Savannah since July last, when the lowest point touched here was sixty and one-half cents per gallon for machine barrels in yard. Notwithstanding the rapid sharp rises in prices of spirits, the receipts at Savannah have been readily absorbed. Various theories are prevalent regarding the disposition of the goods purchased, some believing that the combines are accumulating stocks, while others claim that the actual demand and short interests are responsible for the unprecedented recent advances in the South, due to the continued light receipts, which are below those for the corresponding days of last season. Among the important factors in the naval stores industry which are affecting prices and creating animated discussion, are the higher wages being paid to the laborers in the turpentine belt and the increased scarcity of same; higher freight rates for transportation of naval stores from turpentine farms, which continue to extend much further South, and the inability to ship goods to the markets because of the scarcity of railroad cars, due to the heavy movement of cotton to the markets. Complaints of the high prices for spirits of turpentine from paint, varnish and other manufacturers, as well as local dealers, are increasing and trade in the local market has been dull, being restricted by the prohibitive high prices. Wood spirits and substitutes for pure pine spirits have been making heavy inroads in the consuming markets in the East, and consumers who have heretofore condemned the above products are beginning to use them more freely. Wood spirits are selling at prices from five to ten cents per gallon below the quoted price for pure spirits of turpentine and sales th s far this season, it is claimed, have increased two-fold. Recent advices from London note that about five thousand barrels of spirits of turpentine arrived there in cistern per steamer Iris and later five thousand were exported in barrels by the same steamer. The situation for naval stores here is perplexing, and no one cares to venture to predict whether prices will go higher or react.

The subjoined table shows the highest and lowest quoted prices for each month since January, 1902, and also the highest and lowest points touched in each year from 1902 to date of writing. The figures are basel on the closing quotations each successive week:—

SPIRITS OF TURPENTINE.

	1902.		1903.		1904.		1905.	
	H.	L.	H.	L.	H.	L.	H.	L.
Jan.	41½	39¾	61½	55	68	59¾	54	53
Feb.	44½	41½	66½	66¼	67½	63½	55½	53
March.	49½	44½	69	65¾	64	58½	61	64¼
April.	47½	45½	62½	49½	58½	57	66	57
May.	47½	45½	50	49	59	57	76	60
June	40	48	52	49½	57½	56	81	62
July	47	56½	53	50	57	56¼	63	60
August	47	46	58	52	57½	56	64	62
Sept.	49½	47½	60	50	56	55¼	68½	64½
Oct.	56½	52	62	59½	56	54¼	*72½	69
Nov.	54½	53	60½	59½	54½	50	..	..
Dec.	55	53	60	59	53	50½	..	..
Year.	56½	39¾	69	49	68	60	81	53

*To Oct. 13.

Rosins have shared in the advance for spirits of turpentine and conditions are similar to those as cited for turpentine. The unabated good demand in the South, particularly for the common grades, served to cause a gradual upward move in prices, which are now nearing the high prices recorded in June of this year, when quotations touched four dollars and twelve and one-half cents per barrel of two hundred and eighty pounds, in yard here. Prices for all grades here have touched a point which buyers refuse to meet, and during the past several weeks general dullness pervaded the trade and only a hand-to-mouth business has been carried on, while quotations are more or less nominal. As to the future course of prices, no one cares to make a prediction. The supply of common grades on the spot has been very light and a scarcity at times existed, while the stock of other grades, which are not large, have been attracting less attention.

The following table shows the highest and lowest prices of good strained rosin in yard in the New York market during each month since January, 1903, and the range for each year:—

COMMON STRAINED ROSIN.

	1903.		1904.		1905.	
	H.	L.	H.	L.	H.	L.
Jan.	1.95	1.92½	2.80	2.52½	2.87½	2.80
Feb.	2.30	2.05	3.00	2.85	2.87½	2.85
March.	2.30	2.30	2.80	2.75	3.00	2.95
April.	2.30	2.20	2.85	2.80	3.22	3.00
May.	2.10	2.00	3.05	2.85	4.00	3.22½
June.	2.10	2.00	3.15	3.05	4.12½	3.40
July.	2.05	2.02½	3.00	2.60	3.60	3.50
Aug.	2.02½	1.95	2.70	2.60	3.05	3.60
Sept.	2.30	2.25	2.90	2.70	3.85	3.75
Oct.	2.70	2.35	2.90	2.80	4.00	3.85
Nov.	2.80	2.00	3.00	2.95	..	..
Dec.	2.55	2.50	2.90	2.80	..	..
Year.	2.80	1.92½	3.15	2.52½	4.12½	2.80

In sympathy with the rise in prices for common grades of rosin, pitch has strengthened, and in response to a good demand for supplies for fall requirements prices have been steadily moving upward, and dealers here are being taxed to their utmost in filling orders and catching up with their deliveries. Prices, since the opening of this season, have been advanced about forty cents per barrel for parcels in

yard here. Holders are now asking three dollars per barrel on the spot, against two dollars and sixty cents per barrel at the corresponding time last year.

Owing to the upward tendency to prices for rosin oil, the demand has been more active and fair sales have been effected. In sympathy with the rise in values of the low grades of rosin, manufacturers have again advanced quotations to the basis of twenty-three cents per gallon for carload lots of first run of rosin oil, f. o. b. New York. This price is the highest known for many years, and should the market for rosins advance further, prices for the oil bid well to go higher. The scarcity of the low grades of rosin and the uncertainties surrounding the future course of prices is causing a number of manufacturers to show reluctancy in making contracts or filling orders for large quantities for forward shipment.

The following table shows the highest and lowest prices of rosin oil on the spot in New York during each month since January, 1902, and the range for each year:—

FIRST RUN ROSIN OIL.

	1902.		1903.		1904.		1905.	
	H.	L.	H.	L.	H.	L.	H.	L.
Jan....	13	12½	13½	13	17	16½	17½	17
Feb....	12	12	13½	13½	18	16½	18	18
March..	12½	12	13½	13½	17	16½	18	18
April..	12	12	13½	13	18	17½	19	18½
May....	12½	12½	13½	13	18	17	22	18½
June....	12	12	13	13	18	18	22	20
July....	12½	12	13½	13½	18	17	20	20
Aug....	12	12	13½	13½	16½	16	22	21
Sept....	13	12½	14½	14	16½	16	22	22
Oct.....	12½	12	16	14½	17	16½	*23	22
Nov.....	13	12½	17	16	17	17	..	..
Dec.....	14½	13	17	16½	17	17	..	..
Year....	14½	12	17	13	18	16	22	18

*To Oct. 13.

The only naval stores product which has not shared in the recent advances is tar. Trade in this product has been rather dull, but prices remain about stationary and only a small hand-to-mouth business is being carried on at prices ranging from eleven to twelve cents per gallon for oil barrels on the spot, against nine and one-half cents per gallon at the same time last year.

The subjoined table shows the highest and lowest quoted prices in the New York market for each month since January, 1902, and also the highest and lowest points touched in each year from 1902 to date of writing, inclusive. The figures are based on the closing quotation each successive week:—

TAR IN OIL BARRELS (AVERAGE 50 GALLONS).

	1902.		1903.		1904.		1905.	
	H.	L.	H.	L.	H.	L.	H.	L.
Jan.....	3.80	3.80	4.25	4.25	4.50	4.00	5.15	5.10
Feb....	3.65	3.60	4.35	4.25	4.00	4.00	5.00	4.90
March..	3.60	3.60	4.40	4.35	4.20	4.10	5.25	5.15
April...	3.70	3.65	4.40	4.40	5.75	4.20	5.50	5.35
May....	3.85	3.65	4.45	4.45	5.70	5.50	5.60	5.30
June....	4.20	3.85	4.45	4.45	5.25	5.00	5.55	5.50
July....	4.40	4.25	4.45	4.45	5.00	5.00	5.50	5.50
Aug....	4.50	4.50	4.75	4.50	5.00	4.75	5.75	5.50
Sept....	4.65	4.40	4.75	4.75	4.75	4.50	5.75	5.50
Oct....	4.40	4.40	4.75	4.75	4.80	4.50	*5.50	5.50
Nov....	4.30	4.25	4.75	4.65	5.20	4.90	..	..
Dec....	4.25	4.15	4.60	4.50	5.20	5.00	..	..
Year...	4.65	3.50	4.75	4.25	5.75	4.00	5.75	4.90

*To Oct. 13.

TRADE ITEMS.

(For other Trade Items see table of contents on page 22.)

The Oakland Chemical Co., has secured judgment for $390.55 against Samuel Levy.

The New York Telephone Co. has secured judgment for $130.86 against the Electrotechnic and Chemical Co.

The imports of argols at the port of San Francisco during the month of August, amounted to 13,955 barrels, valued at $12,338.

B. M. Jordan, who has been identified with the paint trade of this city for a number of years is now associated with Apex Color Works.

The cotton mill at Bartlett, Texas, was completely destroyed by fire on October 1. Total loss, $50,000. Fire originated in huller. It was insured.

Charles M. Carr, director of publicity of the National Association of Retail Druggists, was in the city last week attending the meeting of the Press Club.

Advices from Japan note that the market for herring oil has been very dull and that prices are irregular and lower, but buyers' views are still lower. The stock is gradually increasing and holders are asking 4.40@4 1-2 yen. Cod oil is quoted at 7 1-2 yen, shark oil at 5.20 yen and whale oil at 10 yen.

The cotton seed oil mill at Bartlett, Texas, was destroyed by fire October 2, with a loss, it is estimated, of about $65,000, with insurance in the neighborhood of $40,000. The fire broke out in the huller. The estimate of valuation includes cotton seed and all other stock.

A limited number of copies of the seating list giving the names of those who attended the banquet of the N. W. D. A. at the Hotel Astor, October 4th, are held at the office of the Oil Paint and Drug Reporter. Any person desiring a copy may obtain same on request.

A freight train, in switching around the yard at Medina, O., October 4, broke some carboys of sulphuric acid in one of the cars, which also contained three barrels of gasoline, twenty-four barrels of oil and one drum of ammonia. The car took fire and was destroyed.

The disputes between creditors of John L. Wyeth, manufacturing chemist, at Rochester, N. Y., as to the appointment of a trustee were settled last week by the appointment by Referee Draper, of Roy C. Draper, who has been acting as receiver for the estate since bankruptcy proceedings were begun.

The contract for the erection of a forty-ton cotton oil mill at Mangum, O., to be owned by the farmers of Greer county, has been let. The seedhouse will be completed in thirty days. The management expect to have the mill in operation by Jan. 1, 1906. The machinery used in the construction will be the latest improved.

The first meeting of the New York Section of the Society of Chemical Industry will be held at the Chemists' Club, 108 W. 55th street, Friday evening, October 20th. Chair taken at 8:15. The program for the evening will be: "Account of the Annual Meeting in London, and visits to the English Sections of the Society."

On another page of this issue appears the advertisement of Globe Chemical Co., Cincinnati, O., who make a specialty of buying and exchanging unsalable stocks of drugs, chemicals, oils, paints, dyes, carboys, drums, etc. Dealers who have stocks of any of the above articles on hand will find a ready market for the same by writing the Company for quotations.

The Wegelin & Wilckes Black Mfg. Co., who were located at 50 Cliff street, this city, for several years have moved their offices to the Royal Building, 135 William street. This move was made necessary by the growth of their business, necessitating more room and larger facilities. The offices are attractively fitted up, are light and airy and are a credit to this growing concern.

At a meeting of directors of the American Glue Co., Jesse P. Lyman, a member of the executive committee, was unanimously elected president of the company vice John R. Morron, resigned. Mr. Morron will remain a member of the board of directors and of the executive committee. Mr. Lyman was formerly president of the National Packing Co., and of the Hammond Glue Company.

The Proctor & Gamble Co., of Cincinnati, O., has secured an option on sixty-eight acres of land on Staten Island at Mariners' Harbor, on which a large plant will soon be erected. The plant will have an annual output of double the capacity that the Cincinnati plant had in 1890, when the company was organized. At the outset 5,800 hands will be employed. The cost of the erection of the plant and the purchase of the property will be about $3,000,000.

George G. Blackwell, chairman of George G. Blackwell & Sons Co., ltd., Liverpool, Eng., is expected to arrive in this city this week on his annual visit to the steel and iron centers of this country. The special lines of this well known house are the most up-to-date Lion Brand alloys and metals for steel, also fluorspar furnace lining refractories, emery stone, etc. Mr. Blackwell will make his headquarters while in this city at the Hotel Manhattan.

The National Fertilizer Manufacturers' Association held a meeting at Asheville, N. C., and at the opening session on Tuesday, October 10, reports of officers and an address by Dr. A. L. Metz of New Orleans were heard. The sessions will end on October 12. About 100 members of the association were present, including representatives of the leading fertilizer plants in the country. Prominent manufacturers delivered lengthy and most interesting addresses touching on the fertilizer industry of this country.

Fire last week at plant of Grasselli Chemical Company at Grasselli, N. J., burned item 6, building, which is No. 22 of the main plant schedule. Loss $3,000; insured.

The Treasury Department has extended the regulations for the allowance of drawbacks to include imported sulphate of ammonia used in the manufacture of fertilizer intended for export.

Clarence D. Bowman, who formerly conducted a retail drug store at Columbus avenue and Seventy-fifth street, this city, has succeeded the late A. B. Mitchell as New York manager for Hance Bros. & White.

The annual meeting of the Turpentine Operators' Association has been indefinitely postponed on account of the yellow fever in Mississippi, Alabama and Florida. The meeting, in all probability, will not be held until the quarantine is raised.

George T. Vickers, attorney for the receiver of the Chemical Products Co., will make application to-day on behalf of the receiver to have him discharged and a new receiver appointed in his stead. This action is deemed necessary because of the receiver's poor health.

A new company, under the firm name of The Victoria Turpentine Company, of Jacksonville, Fla., will manufacture turpentine from sawdust. Under a new process, it is claimed, that two gallons of turpentine can be produced from one ton of sawdust. A manufacturing plant in Jacksonville will be erected soon, which will construct turpentine plants, to be located wherever an abundant supply of sawdust is assured. It is claimed that by the new machinery a good income can be derived from sawdust which now goes to waste.

Consul Ruffin, of Asuncion, says that all merchandise coming from foreign countries to Paraguay, if shipped direct through, can now come without the necessity of a second bill of lading and consular invoice from Montevideo or Buenos Ayres. All bills of lading of merchandise arriving at either port, in transit for Paraguay, are now simply viseed by the consul at Paraguay. It is not necessary, as heretofore, to get out an additional bill of lading or consular certificate from the Paraguayan consul at either port of transshipment, thereby saving expense to the shipper.

Fire in a four-story building filled with paint, oil, benzine, naphtha, turpentine, and similar supplies, at 149 Mercer street, in the heart of the furriers' district, this city, endangered the lives of the firemen for three hours. The building, which was occupied by the firm of M. Feigel & Bro., was ruined, the loss being about $40,000. The firm keeps up as large a supply of these inflammables as the law will permit, as they are much used by the tailors and furriers in the vicinity. Three-inch hose was fitted to two of the big engines and the cellar was soon filled to a point that covered the tanks. The rest of the building was full of inflammables and burned fiercely.

James Langmuir, who was for nearly thirty years with Harrison Brothers & Company in their New York branch, and finally became vice president and general sales agent for Harrison Brothers & Company, inc., has established in the place of his birth, the city of Toronto, Ont., the firm of James Langmuir & Co., ltd. This company is the selling agent for the Blackwell varnishes and homolite colors for decorators, and specialities for the trade. The factories that will produce these goods are located at 1346 and 1348 Bathhurst st., Toronto. In expressing our best wishes for Mr. Langmuir's success we know that we voice the sentiment of the paint trade of the United States, in which Mr. Langmuir's friends are legion.

The Export and Domestic Can Co. of this city, whose announcement appears on another page, has a list of officers whose names are familiar to the buyers of cans as having been connected with the manufacture of these containers for many years. Mr. H. N. Norton, the vice-president and treasurer has been for thirty years prominently identified with the industry, while the sales manager Mr. Frank Bartlett, who recently became connected with the company has been known to the paint, varnish, lead and drug trade for even a longer period. The company has facilities for manufacturing all standard lines of tin packages, both plain and decorated, and is under the management, in all departments of men who are thoroughly experienced and who are entirely familiar with the wants of consumers.

PETROLEUM NOTES.

Near the Bakertown tunnel, in Alleghany Co., Pa., the Early & Co. well on the Ira Crawford farm is reported to be good for 50 bbls. a day.

In the Marietta district, Washington County, O., William Reader has completed No. 4 on the C. A. Mendenhall farm and has a pumper good for 4 bbls.

Northeast of Homeworth, Columbia County, O., the Renner-Deibel Co. has completed a test on the F. Garmen farm and has a natural producer good for 30 bbls. a day.

In the Woodsfield district, Monroe county, O., the Carter Oil Co. has completed its No. 13 on the Joel Taylor heirs' farm and has a 15-bbl. pumper in the Berea grit.

In the Wolf Creek district, Washington county, O., the Pure Oil Producing Co. has completed No. 7 on the R. J. Burchett farm and has a show for a 10-bbl. producer.

In the Berea grit development, near Woodsfield, Monroe County, O., the Pure Oil Co. has drilled in its test on the L. B. Christman farm and is good for 80 bbls. a day.

In the Adams pool, in Harrison county, O., Jennings Bros. & Freudenberger has drilled in No. 3 on the John Patterson farm and the well is good for 100 bbls. more a day.

In the Payne district, Washington County, O., the Cumberland Oil Co. has completed its No. 3 on the G. Moore farm and has a 5 bbl. pumper in the second Cow Run sand.

It is reported that the Pure Oil Co., of Philadelphia. is preparing to extend its pipe line from Wetzel county, W. Va., to near Marietta, O., and erect a large pumping station.

In the Trail run district, Monroe county, O., the National Production Co. has completed a test on the John Mauth farm and has a show for a 5-bbl. pumper in the Big Injun sand.

Near Dillionvale, Jefferson County, O., the Jefferson County Oil Co. has completed No. 5 on the James McBride farm and has a show for a 15 bbl. pumper in the Berea grit.

In the Graysville district, in Monroe county, O., the Woodsfield Oil Co. has drilled its No. 7 on the Samuel Gray heirs' farm into the Berea grit and has a show for a 10-bbl. pumper.

In the Bealls Mills district, in Lewis County, W. Va., the South Penn Co. has shot its No. 6 on the W. E. Lively farm and the hole filled up 100 feet with fluid and will make a light pumper.

One mile east of the Carson pool, in Beaver County, Pa., the Tecumseh Oil and Gas Co. has completed a second test on the Z. S. Swearingen farm and has a 6 bbl. pumper in the Berea grit

In the Pine Grove extension, in Wetzel county, W. Va., the South Penn Oil Co. has drilled its test on the J. F. Brookover farm into the pay and the well produced 17 bbls. in the first 25 hours.

In the St. Mary's district, Pleasants county, W. Va., the Empire Drilling Co. has drilled its second test on the B. F. Standiford farm into the Keener sand and has a show for a 15-bbl. pumper.

Four miles south of Bealls Mills, Gilmer County, W. Va., the South Penn Co. has shot its second test on the B. F. Bratton farm and the hole has filled up 600 feet with fluid from the fifth sand.

In the Adams pool, Harrison county, O., the Hamilton Oil Co. has sold its lease on the Eddy farm to the Ohio Oil Co., There are five wells on the farm producing 110 bbls. a day and the price was $46,000.

In the Salem district, Harrison county, W. Va., the South Penn Oil Co. has drilled its second test on the Lloyd Randolph farm 5 feet into the Gordon sand and the hole has filled up 1,500 feet with fluid.

On Rock Camp Run, Sardis district, Harrison county, W. Va., Judge Nathan Goff's No. 40 produced 200 bbls. after it was drilled into the Gordon sand, but declined rapidly, reducing 100 bbls. the second day and 60 the third.

In the Burning Springs district, Wirt county, W. Va., the East and West Oil Co. has completed its No. 34 on the Frank Rex farm and has a 10-bbl. pumper in the Cow Run sand. In the same district Shrier Bros. have completed a test on the Thomas Lewis farm and have a very light pumper in the same formation.

In the Salem district, Harrison county, W. Va., the South Penn Oil Co. has drilled No. 5 Andrew Spindle through the Gordon sand and has a 5-bbl. pumper. The same company has the same kind of a show at No. 2 on the S. D. Williams farm.

Vice-Counsel Gracey, of Nanking, reports that in an area of 100 to 130 miles in the province of Shensi, China, kersene oil of a high quality has been found. The Chinese gentry are trying to form a company to start a refinery. but will hardly be successful.

In the Wolf Creek district, Washington County, O., the Elkeye Oil Co. has completed No. 16 on the Zumbro heirs' farm and has a 2 bbl. pumper. In the same district the Pure Oil Producing Co. has completed No. 14 on the John M. Pugh farm and has a show for a 5 bbl. pumper.

H. F. Slater and Co. have bought in probably the best well that has yet been finished in the Leamington field, Ontario. The sand was struck at a depth of 1,080 feet, and immediately the oil shot out high over the derrick. Within one hour there were forty barrels in the tank.

In the Yellow Creek district, Calhoun county, W. Va., the Guaranty Oil Co. has completed No. 8 on the W. W. Knight farm and has a show for a 15-bbl. pumper in the Berea grit. The South Penn Oil Co. has completed and shot its No. 2 on the M. J. Snyder farm and has a 30-bbl. producer.

The Yellow Creek district, in Calhoun County, W. Va., the South Penn Oil Co. has drilled its second test on the M. J. Snyder farm through the Berea grit and has a show for a 40 bbl. producer. In the same district the Guaranty Oil Co. has completed its No. 8 on the Wesley Knight farm and has a show for a 15 bbl. producer in the Berea grit.

The Russian special commissioners appointed to discover the damage done to the Baku oil fields, report 1,777 derricks burned, of which 912 were being profitably worked, 366 were being bored or repaired, and 499 were unprofitable. There are still standing 1,219 derricks, of which 525 are profitable, 282 are being bored or repaired, and 412 are unprofitable.

In the Big Injun district, at Wick, Tyler county, W. Va., Underwood & McCann have drilled their second test on the A. J. Allen farm into the Big Injun sand 50 feet and will not have better than a 10-bbl. pumper. The Carter Oil Co. has drilled its No. 3 on the R. K. Eberhart farm into the same formation and will not have better than a 5 or 10-bbl. pumper.

According to the Liverpool Post, the destruction of the oil properties in the Baku district, Russia, has entailed a loss of $75,000,000. The Russian Government, it is intimated, denies its liability to the property owners, but has hinted that it is willing to issue a loan for the purpose of making good the losses. If an attempt is made to float such a loan in London it is anticipated that it will meet with failure.

Mrs. M. O. Russell, of Bloomington, Ill., who has been engaged in working oil properties in Kentucky, has completed a well in Wayne county which started producing at the rate of 500 bbls. a day. Mrs. Russell has been offered for the well and additional holdings in the immediate neighborhood $100,000, but so far has declined to sell. Oil was struck at a depth of 517 feet, and it is claimed to be of the best quality.

In the Fallen Timber and Richmond Run districts, in Wetzel County, W. Va., Brast Bros. have sold their one-half interest in seven producing wells and one drilling to their partners, the J. C. Trees Oil Co. and M. L. Benedum, for a consideration of $60,000. The properties have a gross daily production of 152 barrels and they have not been fully developed. The oil is found in the Big Injun and Gordon sands and some of the wells on the Morris farm have been remarkable for the way they have held up.

The Standard Oil Company is reaching out for control of the extensive oil fields in the northern part of Japan, according to Chief Officer Henderson of the ship Alcides, just in from Kobe, and discharging cargo at this port. "While we were lying in Kobe," Mr. Henderson is reported as stating, "I met a gentleman on a railroad train one day who told me that he had just come from the oil fields of northern Japan, and that agents of the Standard Oil Company were out there picking up all the promising tracts they could secure."

A syndicate at Johannesburg claims to have established the presence of natural oil in Cape Colony. Acting upon a mining engineer's advice, the syndicate has obtained options on 3,000,000 acres in northwestern Karroo. The indications of an extensive oil deposit are pronounced to be satisfactory.

In the Woodsfield district, Monroe county, O., the Fisher Oil Co. and the Troutman Drilling Co. have completed a test on the Frank Schumacher farm and have a 20-bbl. producer in the Berea grit. In the same district, H. L. Shafer & Co. have completed a test on the Joseph Burkhart farm and have a 15-bbl. pumper in the same formation.

OBITUARY.

William A. Wood.

William Allen Wood, a prominent Boston merchant, died suddenly at his residence in Brookline, Mass., on Oct. 11. Mr. Wood, although 74 years of age, was apparently in vigorous health, and had returned from his office in Boston, when he was stricken, dying immediately.

A native of New Bedford, he early went into the oil business. When the new process of refining mineral oils caused them to supersede whale oil, Mr. Wood went to Boston and founded the firm of W. A. Wood & Co., in 1865. The business grew until Mr. Wood accumulated a fortune, and the firm was incorporated as the W A. Wood Company, of which Mr. Wood was president.

In recent years Mr. Wood has spent part of each year traveling, mostly abroad. He was formerly a member of the Chamber of Commerce, the Boston Athletic Association, Boston Art Club and Boston Paint and Oil Club, but during the last few years had withdrawn from all outside connections. He is survived by a widow and two sisters, Miss M. J. Wood of New Bedford and Mrs. D. M. Savory of Meriden, Conn.

Dr. Gustav von Siegle.

A despatch was received last Wednesday from the G. Siegle Company of New York advising of the death, after a long illness, of Dr. Gustav von Siegel, the senior of the house of G. Siegle & Company, G. M. B. H., Stuttgart, and founder of the G. Siegle Company, of New York, at his home in Stuttgart on the 16th inst. Dr. Gustav von Siegle, prior to his illness, had been a member of the German Reichstag for a number of years. He also leaves a favorable recollection with the pioneers of the trade in this country, whom he visited a number of years ago.

William H. Murphy.

William H. Murphy died at his home in Newark, N. J., last Monday in his eighty-fifth year. Mr. Murphy was the father of Franklin Murphy, president of the Murphy Varnish Company. He was well known in church circles in his locality and contributed largely to its charities. The varnish and paint trades of the United States, we know, join with the Reporter in expressing sincere sympathy to Mr Franklin Murphy in the loss he has sustained.

MISCELLANEOUS.

Aftermath of the N. W. D. A. Convention.

The last day of the N. W. D. A. convention at the Hotel Astor did not see the departure of all the out-of-town members, by any means. Quite a number remained in the city several days and all had not gone at the close of last week. The business and social sessions had required every minute of the visitors' time during the convention and last week was given over to business with the New York manufacturers and jobbers and to what interesting sightseeing had been left out the previous week. The New York jobbers were complimented on the successfully carried out program and praise for the work of the wives and families of the local men was given unstintedly.

Chairman T. P. Cook, of the Entertainment Committee, seemed well pleased with the result of the work done by his committee when seen by a Reporter representative last week. The weather man had been good to them, and considering the large crowd entertained, he considered that everything had passed off satisfactorily. Bills for the various entertainments were being paid as fast as presented, and when these were all in the work of the committee would be completed.

The satisfactory way in which the Hotel Astor handled the convention was recognized by the Entertainment Committee and acknowledged by Mr. Cook in the following letter to the hotel proprietor, Wm. C. Muschenheim.—

"In handing you herewith check in payment of inclosed bill, I take the opportunity to say that the same is eminently satisfactory to the Committee of Arrangements of the National Wholesale Druggists' Association. Too much cannot be said in praise of the manner in which the Hotel Astor handled the large crowd and the several features connected with the convention. The equipment of the hotel was found to be perfect, all the departments seemed to be in charge of competent executives, and the supervision given by yourself resulted in splendid service to us and to our guests, for all of which we most cordially tender our thanks."

The excellent work of the wives and families of local members was particularly noticeable throughout the convention. Several ladies placed their private vehicles at the disposal of visitors.

Many private dinner parties were given during the week and one of the most elaborate of these was at the Nippon Club on 85th street, Friday evening, Oct. 6, when Dr. Jakichi Takamine, president of the club, was host, and nearly a score of prominent manufacturers and jobbers from all parts of the country were guests. The popular doctor, whose reputation as a particularly generous host is widespread, appeared clad in a handsome Japanese costume and the dinner was served in true Japanese style. The diners used chop sticks and of course drank saki, the national drink of Japan. Several odd and artistic articles made of vegetables were sent in by the chef during the evening, each designed especially for the occasion. Two storks, made out of turnips, were said to be for Mr. Hover, the well known father of a good sized family, at whom many facetious remarks were directed during the evening. At the close of the dinner each guest was presented with a souvenir water color painting from the brush of S. Ishikawe, a noted Japanese artist, who executed the work while they watched him. The guests were conveyed to and from the dinner in private electric vehicles.

While the men were enjoying Dr. Takamine's hospitality their wives were being entertained by Mrs. S. H. Carragan at a box party at the Bijou Theatre, where David Warfield was playing in "The Music Master."

A United Lead Co. Suit.

Suit has been entered in the Court of Chancery of New Jersey by Harry C. Haskins of New York against Thomas F. Ryan, the complainant alleging that Mr. Ryan appropriated plans furnished by him to consolidate the independent lead companies, resulting in the United Lead Company. The complaint in substance is as follows: During 1898, 1899, 1900 and 1901 the complainant devoted a large part of his time to the study of the industrial conditions connected with the output of pig lead in the United States and the manufacture and production of white lead and other products obtained from lead. He visited different plants in the United States, and conceived the plan of uniting the lead interests and enterprises that had not already become a part of the National Lead Company into one company for the purpose of competing with the National or forming a combination therewith, and for the purpose of acquiring control over the total output of lead and the lead product of the American Smelting and Refining Company, so that the consumer might acquire white lead and other similar products at reduced prices, and to that end procured options on a large part of independent lead concerns

In the spring of 1901 the complainant had crystalized and formulated a complete plan for the combination of the independent lead interests in the United States. He conferred with the then president of the American Smelting and Refining Company, Edward W. Nash, and through him procured a letter of introduction from Daniel Guggenheim, chairman of the executive committee of the American Smelting and Refining Company, to Thomas F. Ryan, vice-president of the Morton Trust Company. A meeting was had with Mr. Ryan, during which Haskins made known his whole plan, and agreed, if necessary, to contribute $200,000 to the project if Mr. Ryan would join him and contribute enough to carry out the enterprise. Mr. Ryan became very much interested in the project, and expressed a willingness to join, provided an examination, made by his attorneys and experts, confirmed statements already made by Haskins. Haskins was then referred to Ryan's attorney, and laid before him his plan and scheme of merger, and the same was to be examined and a report made thereon later. After reasonable time had elapsed Haskins again called upon Ryan's attorney, and the latter told him that he had endorsed the scheme but that Mr. Ryan had not had time to take up the matter.

While Haskins was waiting to hear from Ryan he heard rumors that Hugh Grant Browne, who was connected with the Morton Trust Company, and Mr. Ryan, through a prominent attorney of Ryan, were engaged in obtaining options on the plants of the lead companies from which Haskins had obtained options and from others for which Haskins was negotiating the purchase, together with the complete details which were embodied in the original plan laid before Ryan and his attorneys. Haskins charges that options have been obtained in the interests of Ryan upon most, if not all, of the properties upon which he had options, and subsequently the United Lead Company was organized in New Jersey under the direction and control of Ryan. Haskins further charges that in the formation of the United Lead Company Mr. Ryan made an enormous profit by availing himself of information which Haskins, after years of labor and great expense, had collected together, and had only disclosed to Mr. Ryan upon the agreement on the part of Mr. Ryan that he would join in the scheme and share with him in the profits. Haskins alleges that Ryan should give account to him of his share of all profits that have been reaped by him in connection with the promotion of the United Lead Company and should be directed by the court to pay him his share thereof.

Suit Against Standard Distilling Co.

Vice Chancellor Emery, at Newark, N. J., last week, dismissed the temporary restraining order granted by him two weeks ago enjoining the trustees in charge of the assets of the Standard Distilling and Distributing Company from winding up the affairs of that corporation without first paying a claim of $200,000 made by Nathan Bijur.

The Standard company was incorporated in 1896 for fifty years. On the back of the certificates of preferred stock issued was endorsed an alleged contract to the effect that dividends would be paid as long as the certificates remained outstanding. The suit involves the construction to be placed on this alleged contract.

Counsel for the defense contended that under it the company was liable for dividends only during its own existence. The complainant held that the trustees were liable to the complainant for dividends to the amount of $4,624 a year for a term of forty-three years which remained out of the fifty years after the dissolution was effected and the company's assets were taken over by the Distilling Company of America.

Mr. Bijur's counsel asked that a bond or other security be furnished by the trustee, to secure the complainant's claim, in lieu of the continuance of the restraining order. The court held that the complainant was not entitled to further security than that which the corporation act gave him.

Buffalo Paint Club Election.

The Buffalo Paint, Oil and Varnish Club held the annual meeting for the election of officers to serve during the year ensuing on September 21. The following officers were elected:

President—A. D. Dwelle.
Vice-president—Geo. P. Towns.
Secretary—C. F. Tomlinson.
Treasurer—A. G. Schuele.

American Chemical Society Meeting.

The first regular meeting of the season, of the New York Section of the American Chemical Society, was held at the Chemists' Club, Friday evening, October 6, 1905. The program of the evening was as follows:—

"The Detection, Determination and Rate of Disappearance of Formaldehyde in Milk," by R. H. Williams and H. C. Sherman.

Using a method which permits approximate estimation of any amount of formaldehyde greater than 1:160,000 it was found that even aqueous solution of formaldehyde of 1:10,000 to 1:40,000 lose strength steadily on standing at room temperature, the loss being due to an actual destruction, and not merely to polymerization, of the formaldehyde; while when added to milk in the same proportion formaldehyde disappears ten to twenty times as rapidly as from water. The hydrochloric acid and ferric chloride test is capable of showing one part of formaldehyde in 250,000 parts of milk. Sourness of the milk does not in itself diminish the delicacy of the reaction, but when milk is preserved by means of formaldehyde the latter will have largely disappeared before the milk becomes sour. Considerable data regarding the time required for the disappearance of the reaction is given. The gallic acid test, applied to the distillate obtained from the milk after acidulation with sulphuric acid, is much more delicate than the hydrochloric acid and ferric chloride test, and gives more conclusive results with samples which have stood until the formaldehyde has largely disappeared.

"Observations on the Preparation of Metallic Calcium by Electrolysis," by J. B. Whitney and S. A. Tucker.

The method used was that of J. H. Goodwin, and the attempt was made to improve the yield of the metal. The electrolyte was molten calcium chloride. The apparatus used at first was similar to Goodwin's and the results obtained agreed satisfactorily with his. It was found that the proper temperature limits were so difficult to maintain that a new form of Kathode was devised, in which the temperature of the iron rod was kept down by water cooling. With this improvement the yield of calcium was increased to 50 per cent. A modification of the Kathode was tried in which the iron Kathode was inclosed by an insulated graphite bell, the object being to prevent the oxidation and chloranation of the calcium, as formed, but it was not found to work well in operation.

New Corporations

The Gillette Bottle Stopper Co., at Portland, Me., to manufacture bottle stoppers; Capital, $1,000,000. President, J. W. Anderson, Gray; treasurer, J. R. Parsons, Yarmouth.

The International Cotton Seed Delinting Co., at Augusta, Me., to clean, delint and otherwise prepare cotton seed; Capital, $2,000,000. President and treasurer, I. L. Fairbanks of Augusta.

The American Color & Chemical Co., at Brookline, Mass., to deal in chemicals; Capital, $10,000; President, Frederick E. Atteaux, Brookline; Treasurer and clerk, Chas. E. Peakes, Weston.

The Keystone Sulphur Co. at Camden, N. J., to manufacture perfumery, oils, fats and scouring products; Capital, $5,000. Incorporators: Galon Graff, Jas. A. Greenwall, D. W. Dick, Camden.

The Cuban "Aqua De Oro" Co., at New York City, to manufacture medicinal preparations; Capital, $15,000. Incorporators: John E. Blackman, Alfred A. Liscomb, M. E. Hibbard, New York City.

The Empire Talc Co., at Gouverneur, N. Y., to mine and mill talc or mineral pulp; Capital, $5,000. Incorporators: Everingham Richards, George W. Connell, New York City; Frank W. McConnell, Brooklyn.

The Japanese Medical Dispensary, at Rochester, N. Y., to manufacture medicines, etc.; Capital, $25,000. Incorporators: Willoughby V. Champlin, Anthony M. Cornelius, Rochester; George F. Ditmars, Geneva.

The French Window Glass Co., at Vineland, N. J., to manufacture glass; Capital, $10,000. Incorporators; Huriaf Bordas, Spring City, Pa.; Herbert Thomas, Millville; Geo. W. Haggerty, Geo. Cunningham, Harry D. Cheeseman, Vineland.

(Special Correspondence to the Reporter.)

The Liquor Dealers' Tax on Druggists.

Washington, Oct. 13, 1905.

A determined effort is being made by the organized retail druggists and also by many manufacturers of medicinal preparations, including the members of the Proprietary Association of America to induce the Commissioner of Internal Revenue to modify the administative features of the recently promulgated circular requiring druggists to pay special tax as retail liquor dealers if they handle articles containing excessive quantities of alcohol. The representations made to the commisioner and to the Secretary of the Treasury are receiving careful consideration and it is possible that a modification may be secured before the provisions of the new regulation go into force on December 1.

No objection whatever has been raised to the spirit of the ruling embodied in the new circular, No. 673, but the fact is strongly emphasized that it imposed upon the retail drug trade a responsibility which the government ought to assume, namely, the determination of those articles the sale of which renders the retailer liable to pay a special tax as a liquor dealer. The considerations put forward in the numerous protests received by the commisioner are concisely summed up in a memorandum filed in the interest of certain manufacturers who claim that their products are not in the category with those aimed at by the commissioner, but that the practical operation of the new ruling will be to cause embarrassment and heavy financial loss to a large number of producers of standard drugs and medicines, and to create great disturbance in the retail trade. In this memorandum it is stated that no apology can be made for any beverage which "masquerades in the guise of a medicine," but the difficulties in connection with the new circular are entirely independent of this proposition and affect primarily a class of articles which the ruling was not intended to cover. In the original circular issued some months ago, the rule for determining whether an alcoholic compound should be regarded as a beverage or a medicine was clearly stated, as follows:—

"The true test in all such cases is, was the compound sold in good faith for medicinal purposes only, or was it sold as a beverage, or sold knowingly to persons who bought it for use as a beverage?" This is a clear and distinct proposition; but in applying the rule, it is maintained, the question as to the composition of the compound would always be a pertinent and proper consideration, for an alcoholic compound certainly could not be sold "in good faith as a medicine" when it was known to be without medicinal qualities. The provision of the old ruling now revoked, expressly provided that compounds composed of spirits in connection with drugs, herbs, roots, &c., held out as a remedy for diseases stated in the label on the bottle, were "to be regarded as medicines until the facts ascertained as to the objects for which they are usually sold or used, show them to be beverages, and until such facts are obtained druggists and merchants who sell these compounds in good faith as medicines only are not to be called upon to pay the special tax as liquor dealers on account of such sales."

In commenting upon this feature of the former ruling, the memorandum describes it as "fair alike to manufacturers, druggists and merchants, as it could cause no needless alarm and every dealer felt that he would have due notice if any article handled by him should be thereafter determined to be in the category of goods which he could not sell without a government license." Summing up the conditions under which the retail druggist must conduct his business under the new ruling, the memorandum says:—

"Under the old ruling, the essential facts to be determined were generally within the power of a druggist or country merchant to personally investigate and determine for himself. Yet even under that ruling the Department undertook to settle the facts in each case first, and druggists and merchants were given to understand that they would-be notified when the sale of any particular article must be discontinued by them unless they procured a license.

"But Circular No. 673 not only changes the rule for determining the essential facts upon which the necessity for a license depends, but it completely reverses the policy of the Department in a most vital respect, for it imposes upon the druggist and the merchant the necessity of investigating and determining for themselves the facts in each case. It is true that the fifth paragraph of the circular states that 'the question in each case arising under the terms of this circular will be determined by this office, not merely upon examination of the formula submitted by the manufacturer of the compound, but upon result of the analysis made in the chemical laboratory here of samples obtained in the open market and sent in by local internal revenue officers and agents.'

"But this is completely neutralized so far as immediate effect upon the trade is concerned, by the concluding paragraph of the circular, as follows:—

"'Collectors will, however, immediately upon the receipt of this circular send out notice to all druggists and merchants dealing in proprietary medicines in their districts who do not hold the requisite special-tax stamp as liquor dealers, that on and after December 1, 1905, they will be required to pay special tax for selling the alcoholic compounds coming within the ruling now promulgated even when they sell them in good faith for medicinal use only, never selling them as beverages, nor selling them knowingly to those buying them for use as beverages.'

"It is understood that not more than one-half of the druggists hold internal revenue liquor licenses. In many parts of the country, to take out and display such license would injure, if not ruin, their business in the communities in which they live, and the same is true in a still greater degree in the case of thousands of country merchants. These men do not wish to take out such licenses, nor do they wish to violate the internal revenue law, and above all they are anxious to avoid any controversy with the Federal Government.

"Considering these facts, it is clear to anyone familiar with trade conditions that the enforcement of the provisions of this circular will produce more far-reaching consequences than the Department contemplates. It imposes upon druggists and merchants who deal in proprietary medicines the duty of determining for themselves what medicinal compounds come 'within the ruling now promulgated.' Remembering that thousands of medicinal compounds are sold in all parts of the country by druggists and by merchants in the rural districts and remembering that many of these necessarily and properly contain alcohol, it seems clear that the task of dealing with the question raised by this circular is very great. Yet each one must immediately settle for himself this difficult and troublesome question as to whether the non-alcoholic substances in the compound are medicinal in character and in sufficient quantity to give the compound the character of a medicine.

"Few subjects have given rise to more vehement controversy than the medicinal quality of drugs. Such questions have been debated for generations, and the sharpest differences of opinion still exist. The controversy between the various schools of medicine has been waged long and fiercely and the battle still rages. Alopathists and homeopathists reach conclusions diametrically opposite. Osteopaths are ready to say, 'A plague on both your houses,' while the followers of Mrs. Eddy vehemently assert that all medicine is a delusion and a snare.

"When we remember that the prejudices of many able physicians upon this subject are so intense that they are willing to let a sick man die rather than consult in regard to his case with other equally learned physicians who differ with them as to the medicinal qualities of certain drugs, it is evident that the questions which may sooner or later be involved in carrying out the principles of Circular No. 673 are sure to be interesting and numerous. It is also evident that it may be a matter of vital importance to the manufacturer of a medicine which is under investigation what kind of a jury of experts is to sit in his case, for in many instances the conclusions may largely depend upon the school of medicine from which the members of the jury graduated.

"Under this circular, all these complicated questions must be settled immediately by the druggists and merchants at their own peril. Some druggists might be able to analyze the medicines in stock, but for many it would be a very difficult and troublesome job, and for the general merchant it would be impossible. Yet tens of thousands of these merchants all over the country will receive notice under the last clause of this circular from the collectors, and will immediately find themselves in great difficulty. If the provisions of this circular are to stand, thousands and even tens of thousands will be afraid to purchase any liquid medicine whatever, which contains alcohol, no matter what the standing or character of the remedies may be. Numberless mischief makers in many communities are certain to do all they can to intimidate the country merchants, and perhaps even the retail druggists, and an enormous falling off in the sale of legitimate remedies must inevitably occur."

In conclusion, it is insisted that the question as to whether the article falls "within the ruling now promulgated is much too difficult, too complicated and too involved to be intelligently determined either by the average retail druggist or by the general merchant," and therefore the bureau is urged to modify the new regulation in such a manner that retailers will incur no special tax liability unless they carry in stock preparations which have been determined by the bureau to come within the prohibition of the new ruling.

The method suggested by the retail druggists for modifying the new ruling is comparatively simple. It is proposed that the chemical division of the Internal Revenue Bureau shall proceed with the work of analyzing samples of medicinal preparations purchased in the open market and upon the discovery of any that come within the prohibited category, collectors of internal revenue shall be instructed to notify all druggists and merchants in their districts, granting a reasonable time within which to dispose of such goods as may be in stock. The fact is emphasized that in this way the character of each preparation will be determined by the same authority that has laid down the general but vague ruling regarding the special tax liability of those who sell it, and thus there can be no conflict of opinion. Druggists will not be molested until they refuse or fail to obey the commissioner's instructions after the promulgation of adequate analyses.

It goes without saying that the new ruling will be atacked in the courts by the manufacturers of certain preparations at which it is more particularly aimed. The retail trade, however, is not greatly interested in this phase of the question, their anxiety being simply to cause to be determined by the government rather than by themselves the list of alcoholic preparations which may not be sold without incurring liability under the federal statutes.

There is a feature of this interesting question that is causing retail druggists in certain parts of the country a good deal of anxiety. As is well known, not more than one-half the membership of the National Association of Retail Druggists pay special tax as retailers of spirits under the federal law. In certain jurisdictions covered by prohibition laws, the local statutes make the possession of a federal license as a retailer presumptive evidence of the violation of the prohibition laws. In such cases the retailer is in a decidedly embarrassing position under the new ruling, which forces him to decide for himself what preparations can be carried without incurring special tax liability. If his opinion should not agree with that of the internal revenue authorities, he must not only take out a special federal license, but he must incur liability of prosecution under the local prohibition laws. This interesting situation is cited as showing why the administrative provisions of the new ruling, the spirit of which is generally approved, should be so modified as to place on the government the responsibility for determining the identity of preparations which the Commisioner of Internal Revenue is endeavoring to reach.

The movement to secure the modification of the new regulations is attracting a great deal of atention here and, as is often the case, is the subject of more or less discussion in the dispatches of ill-informed correspondents of the daily press. A prominent St. Louis newspaper publishes a dispatch from its Washington representative to the effect that the retail druggists have decided to make a direct appeal to President Roosevelt to have the new regulation rescinded. This statement is premature to say the least, and there is no evidence to justify the belief that the retailers have decided to carry the case over the head of the Secretary of the Treasury, who has not yet declined to modify the new ruling. Secretary Shaw is taking a lively interest in the matter and will support Commisioner Yerkes in any conclusions he may reach, but the matter will have very careful consideration before adverse action is taken.

(Special Correspondence to the Reporter.)

Potassium Salts in the United States.

Washington, Oct. 13, 1905.

The United States Geological Survey has prepared a monograph designed to stimulate the development in the United States of the potassium salts industry, which has thus far made little progress, consumers being dependent almost entirely upon the German product. Following is an abstract of this interesting report:—

(Special Correspondence to the Reporter.)

As a preliminary to the discussion of the possibility of finding potassium salts in the United States it is thought desirable to give a short sketch of the German potassium salts industry up to the present time.

France produces a few thousand tons of potassium salts by evaporation, and a small mine at Kalusz, Galicia, produces some 1,200 tons per year, but, with the exception of saltpeter, the world continues to be dependent for its supply of potassium salts upon the mines of the Stassfurt district, Germany, controlled by the Kali syndicate.

The best account of the development of the German potassium salts industry is to be found in volume 50 of the Zeitschrift fur das Berg Hutten, and Salinen-Wesen, in an article by Westphal, entitled "History of the Royal Salt Works at Stassfurt, with Reference to the General Development of the Potassium Salts Industry." This article gives the history of Stassfurt from the year 802. Even at this remote date there was a noted salt market there. In the North German basin the first attempt to strike a brine by boring was in 1825. Boring methods at that time were very primitive, and nothing very satisfactory was developed by this early work. Boring was continued, however, in the hope of striking a pure brine. In the year 1838 the methods of boring were so improved that systematic work could be done, and in 1839 a bore hole was commenced at Stassfurt, in June, 1843, the first salt was struck. The results of analyses of waters and salts brought up warranted the sinking of a shaft, and it was commenced December 15, 1851. In 1856 the shaft reached a depth of 1,066 feet. At this time there was no idea of the value of the impure salts passed through. In 1858 a second shaft was opened, and from 1861 on the industry has gradually increased, until it has reached the present enormous production of over 3,000,000 tons per year.

The German syndicate now comprises the following members:—The Prussian and Anhalt State mining authorities, and the works or companies known as Westergeln, Neustassfurt, Aschersleben, Hereynia Bernburg, Wilhelmshall, Ludwig II., Gluckauf, Mansfeld, Hohenfels Asse, Salzdefurth, Hedwigsburg, Karlsfund, Burbach, Hohenzollern, Kaiseroda, Beinerode, Einigkeit, Thiedershall, Jessenitz, Johanneshall, Alexandreshall, Wintushall, Justus I. and Bleicherode. The new members in the above list are Wintushall, Alexandershall and Johanneshall.

The production of crude potassium salts in the German Empire for 1903, in metric tons of 2,204.6 pounds, was as follows:—

	Tons.
Rock salt	1,095,541
Potassium salts other than kainit	2,073,720
Kainit	1,557,243
	4,726,504

The figures given below show the distribution and consumption in metric tons of Stassfurt potassium for agricultural purposes by the United States and Europe in 1900:—Germany, 117,712 tons; United States, 66,595; France, 8,229; Sweden, 8,197; Holland, 7,106; England, 4,020; Belgium, 3,607; Austria-Hungary, 3,389; Scotland, 3,370; Spain, 2,428; Denmark, 1,692; Russia, 1,597; Italy, 1,380; Switzerland, 1,026; Ireland, 600; Finland, 382; Norway, 286, and Portugal, 43.

The greater part of the imports into the United States is used in the manufacture of fertilizers, which industry has already reached enormous proportions and is steadily on the increase. The German product of kainit for 1901 was valued at $5,163,886, an average of $3.45 per ton, and of other potassium minerals at $5,181,974, an average of $2.54 per ton.

In 1901 there were exported from Germany in the form of kainit, sylvinite and potash manure 592,336 metric tons of potassium salts (of which the United States took 322,327 tons, more than 54 per cent. of the entire export), and 37,216 metric tons of refined and concentrated potassium salts, muriates, sulphates, etc. (of which 22,821 tons, or 61 per cent. of the whole, went to the United States). Official statistics show an import into the United States for 1903 of 275,302 long tons of kainit and sylvinite.

The imports of potassium salts for the fiscal year 1904, as reported by the Bureau of Statistics of the Department of Commerce and Labor, were as follows:—

	Quantity, pounds.	Value.
Potash, bicarbonate	93,769	$4,778
Potash, caustic	4,847,041	199,718
Potash, muriate	161,503,735	2,428,480
Potash, bichlorate and chromate	38,423	2,554
Potash, Prussian yellow	1,736,564	156,276
Potash, sulphate	47,592,131	833,954
Potash, chlorate	315,316	12,541
Potash, Prussian red	55,624	13,508
Total	215,182,603	$3,651,808

The importance of producing potassium salts in this country can be seen from the foregoing figures. As has been said, there is a steady growth in the demand for crude potassium salts for fertilizers, and the refined salts are necessary to many branches of chemical manufacture. Some of the principal uses, as given by Dr. Carl Ochsenius, are as follows:—Arsenite of potassium, for printing on cloths; bromide of potassium, for photography, aniline dyes, medicine; carbonate of potassium (potash), for bleaching, dyeing and soap and glass making; hydroxide of potassium (caustic potash), for bleaching, dyeing, soap making and surgery; chlorate of potassium, for fireworks, matches and aniline colors; chloride of potassium, for saltpeter, alum, freezing compounds and medicine; chromate of potassium, for dyeing and electricity; cyanide of potassium, for extraction of gold, hardening steel, cloth printing, galvanoplastic photography, medicine and aniline colors; manganate and permanganate of potassium, for dyeing, disinfectants, bleaching and in medicine as antidotes to poison of serpents; nitrate of potassium, for explosives, dissolvents and preservation of meats; silicate of potassium, for tereochromic painting, pottery, etc.

The manufacture of cyanides has become an important industry in the United States. Under this heading are potassium ferrocyanide, potassium ferricyanide, potassium and ammonium sulphocyanides (known commercially as sulphocyanides), and potassium, sodium and other cyanides. In 1900 twelve establishments were reported in the United States in which the cyanides were the principal products, the value being $1,466,061, and six establishments in which they formed secondary products, the value being $12,844. These eighteen establishments employed $1,322,719 of capital and 391 wage-earners and produced $1,595,505 of product. There distribution was six in New Jersey, four in Pennsylvania, three in Ohio and five in Maryland, Massachusetts and Missouri. Of the products reported, 6,165,407 pounds, having a value of $904,014, were potassium ferrocyanide, and 2,317,280 pounds, having a value of $601,491, were the so-called potassium cyanide.

No systematic work has been done in this country for the purpose of developing beds of potassium salts, with the exception of the work done by a small Michigan company organized in 1899 for that purpose. Within recent years both individuals and small companies have attempted to exploit certain districts or properties for potassium salts, but so far as is known they have accomplished nothing of practical value. The actual work of the Michigan company referred to was limited to one hole 500 feet deep put down at Cody, Wyo. A contract was made for drilling 2,500 feet, but after boring about 500 feet the man threw up the contract

Very little money has been expended in the attempt to discover potassium salts in the United States in comparison with the value of the discovery to the country and in comparison with the sums of money expended on the German mines by way of exploration. The United States Potash Company, already mentioned, did not expend over $30,000 in its four years of surface exploration and preparatory work, and private individuals have reported a total outlay for exploration of about $40,000. In the German field, where the extent of the deposit is pretty well defined, immense sums of money have been expended in exploration. The Hohenzollern Company at Aifeld-on-the-Leine spent some £300,000 in fruitless exploration work. At Bentheberg, near Hanover, a shaft was sunk 3,250 feet and potassium salts of fine quality were found; but the shaft failed owing to the influx of water into the mines. The Societe Soivay Werke, at Micheln, in the Kalbe district, has a capital of $2,380,000 to be used for the development of potassium salts.

There are seven districts in the United States, including a Mexican locality extending into the United States, which seem to offer the most favorable conditions for boring and in which a hole put down 1,000 to 2,000 feet would decide for that district whether it contained a bed of potassium salts or not. These seven fields are in the neighborhood of:—1. Cody, Bighorn basin, Wyo.; 2. Magnesian Lakes, near Laramie, Wyo.; 3. Byron Springs, Contra Costa county, Cal.; 4. Death Valley, Cal.; 5. Sierra de los Cucapas basin, Lower California, extending into San Diego county, Cal.; 6. Boundbrook, N. J., and, 7. Mount Tom, Massachusetts.

Although no deposits of potassium salts similar to those found in the Stassfurt district of Germany have been discovered in the United States, various indications of possible potassium deposits have been found in saline springs, in oil wells and bore holes, and in desert deposits.

Along the line of the fault on the rim of the Big Horn basin, Wyo., the waters are rich in potassium salts, running from 5 to 11 per cent. of the total residue. The latter amount is claimed for the Great Spring of Thermopolis, at the eastern end of the Big Horn basin.

Many of the saline waters struck in wells and bore holes in the western oil fields have been tested for their potassium contents. In many cases the quantity was so slight that no record of the analysis was kept. A few examples of the richer analyses in the California oil fields are given in the following table:—

Sample.	County.	Percentage of potassium salts in residue.
1. Oil City bore hole	Fresno.	6.51
2. From sulphur bank	Lake	Slightly over 2
3. Williams Brothers' oil well	Napa.	Slightly over 1
4. From miners' oil well.	Colusa.	Slightly under 1
5. Coalinga	Fresno.	0.62
6. Berryessa oil well	Napa.	0.7

No analyses of oil-well water have shown a higher percentage of potassium salts than those here given.

From time to time large deposits of potassium salts are reported as found in the arid regions of the West, but on examination these deposits usually prove to be mixtures of sulphate of lime, sulphate of soda, and carbonates, with but a small percentage of potassium salts. Prospectors have analyses made, and the chemist reports perhaps 20 per cent. of sodium and potassium salts. The prospectors immediately imagine this percentage to be largely potassium salts, while as a matter of fact it is chiefly soda and contains probably 1 per cent. or less of potassium salts. A good example of such deposit is that of Carlso Creek, San Diego Desert, California. Another is a deposit in Uinta county, Utah (south of Rock Springs, Wyo.).

Yokohama Petroleum Trade.

Notwithstanding the severity of taxation necessitated by war kerosene shows an increased import over the preceding year, though considerably below the average of the three years preceding. In addition to the import duty there was a consumption tax levied on it for three-quarters of the year; but on October 1 the latter tax was removed, while a heavier import duty, equal to 1s. 6d. per case, was imposed both on case oil and bulk oil. The object of this alteration of imposts was to combine protection to the nascent home production with increase of revenue; the result was failure to secure either object and to aggravate the burdens of the consumer. The price for case oil fluctuated in the year within the limits of 6s. and 6s. 10d.; tank oil rose steadily from 4s. 4d. to 5s. 4d. The taxing of both tank and case oil on the same basis was an innovation, and a law has lately been passed by the Diet increasing as from July 1, 1905, the duty on both from 1s. 6d. to 1s. 11d. per case.—British Consular Report.

PAINT MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 31.

Saturday Noon, Oct. 14, 1905.

The favorable weather continued to stimulate the movement of supplies into consumption and the withdrawals of paints and colors, etc., on outstanding contracts have been large. Trade in dry colors has been more active, and mixed paints and colors in oil are moving into consumption in larger quantities, which is being aided, in part, by the near approach of the closing of navigation on canals and lakes. In the lead products the withdrawals on contracts continue to be heavy, and corroders, in many instances, have been forced to turn down large orders for supplies for prompt and forward delivery. In the paint materials business is steadily improving. A large number of representatives of leading paint, oil and varnish firms and delegates of the local Paint, Oil and Varnish Club attended the convention of the National Paint, Oil and Varnish Association, which was held at Chicago, on Oct. 10, 11 and 12, and proved to be a most interesting meeting, of which details appear in full in this issue.

White Lead, Zincs, Etc.

WHITE LEAD.—The continued favorable weather served to stimulate the demand for the various lead products, and the movement of supplies, particularly lead in oil, to meet the requirements of consumption have been unusually large. The withdrawals on outstanding contracts show no signs of abating and corroders consequently are taxed to their utmost to make prompt deliveries. Consumers are still obliged to take such lots as crushers can ship, as stocks have been materially reduced and are becoming scarce. Few additional orders for sizeable lots have been booked and, in some instances, corroders have been forced to turn down orders. Quotations are firm at 6½c. and upward, as to size of order and terms of sale. Dry lead is becoming scarce and corroders are behind in their deliveries on contracts. Several orders for additional large parcels were turned down and only small lots at 5½c., according to quantity and terms of sale, have been booked. Parcels of English lead in oil for prompt delivery, according to make and quantity, at 9½c. and upward have been sold and the demand shows further signs for an improvement.

RED LEAD.—There has been no cessation in the demand and manufacturers are still being taxed to their utmost in making deliveries on outstanding contracts and to meet the urgent call for supplies for consuming requirements. Owing to the above stated affairs only a moderate number of new orders at 6½c. and upward, according to quantity and terms of sale, have been booked. English is firmly held, and for parcels in all positions 8¼c. and upward is being named, while glassmakers' grades are bringing on the basis of 7½c. and upward, according to grade and seller. In response to firmer primary markets, German is strong under limited offerings of old stocks on the basis of 6¾@8½c., according to grade, quantity and terms of sale.

LITHARGE.—Orders from all points have been accumulating and reached a large volume, particularly for supplies on outstanding contracts. Additional new orders were of a fair volume for parcels for later delivery. Supplies are light and prices rest on a firm basis at 6¾c. and upward, according to grade and terms of sale.

ORANGE MINERAL.—The demand for French continues to be active, but moderate new orders by dealers are being booked from stocks on hand, embracing special brands on the basis of 11¼c. for lots of 5 casks and over and in kegs at 12½c., while other makes are selling at 10½c. and upward, all according to style of packing, size of order and terms of sale. In response to firm markets abroad, German remains firm, and moderate quantities for prompt delivery at 8c. for ordinary and 10c. and upward for extra grades, according to size of order and terms of sale, have been booked. Supplies of domestic continue light, and owing to large deliveries on contracts there is little available to fill new orders. Prices are firm on the basis of 8¼c. and upward, according to size of order, less discounts and terms of sale.

PIG LEAD.—Prices for spot parcels remain firm in sympathy with stronger advices from abroad. Trade, however, has been quiet and holders of spot parcels are naming 5@5.10c. and 5c. to arrive. The combination's quotation of 4.85@4.95c. for parcels to arrive is attracing little attention, and has been practically neglected. The St. Louis market remained quiet but firmer in tone at 4.90@4.93½c. Cables are higher, and quoted soft Spanish at £14 15s.

ZINCS.—The demand shows signs for steadily improving, and orders for parcels from the home consumers for supplies on contracts and additional new business continue on a fairly large scale. Makers are being taxed to their fullest capacity to meet the unusual heavy requirements. Prices are firm for the various New Jersey makes on the basis of 4⅝@4¾c., according to grade, size of order and terms of sale. Both the French process and German show a marked degree of strength in response to foreign markets, which bid well to further advance.

Dry Colors.

REDS.

The market presents a steady appearance under a seasonable demand and a fair movement of supplies into the channels of consumption. Parcels of English venetian are quoted at $1.15 and upward. vermilion imported at 75c. and upward, American quicksilver, bulk, at 65c., and in bags at 66c., less discounts, according to terms of sale.

BLACKS.

The withdrawals on orders and additional new business reached a volume up to the expectations of most manufacturers. Quotations for the standard qualities of blacks remain stationary, and parcels of carbon are held at 5@10c., high grade at 15@28c. and lamp-blacks on the basis of 4½@5c. for commercials, less discounts, according to terms of sale.

BLUES.

Prices remain steady in tone under a seasonable demand. Manufacturers and importers are quoting spot parcels of Celestial at 4c.; Chinese at 29c. and upward, and Prussian at 27c. and upward. Soluble is unchanged at 29@33c., all less discounts, according to terms of sale.

BROWNS.

The demand has been fairly good which resulted in moderate sales of spot parcels and a fair volume of import orders for prompt delivery. Quotations remain steady, and spot lots of Italian siennas, burnt and powdered, are held at 3c. and upward; Turkey umber, burnt and powdered, at 2½c. and upward; American burnt and raw is steady at 1½c. and upward, all less discounts, according to quantity, quality and terms of sale.

GREENS.

The movement of supplies into consumption has, in many instances, exceeded the expectations of manufacturers and importers, and business for the week amounted to a satisfactory volume. Spot parcels of chrome are quoted at 11c. and upward, less discounts, according to quality, quantity and terms of sales. Paris green remains unchanged, and occasional small lots are being traded in at current quotations. Supplies in bulk of five tons and over are held at 16c.; 100 to 175 lbs. kegs at 17½c., and packages of 2 to 5 lbs, at 17½c., 1 lb. at 18c.; ½ lb. at 19c., and ¼-lb. packages at 20c. per pound.

YELLOWS.

Inquiries continue to be fair and business during the week embraced fair orders for spot lots and parcels for import. The movement of supplies into consumption exceeds that for the corresponding time last year. Spot parcels of chrome are quoted at 11c. and upward, less discounts, according to quality and terms of sale. French ocher remains steady at 1¼c. and upward, less discounts, according to quantity, quality and terms of sale, and domestic is quoted at $8.50@16 per ton, according to terms of sale.

Mixed Paints and Colors in Oil.

Manufacturers express themselves as being highly pleased with the volume of new orders, which were well distributed in all grades of mixed paints and colors in oil. The ordering out of supplies on outstanding orders continues to be good. Quotations remain firm and manufacturers are naming unchanged prices, less discounts, according to quantity, brand and terms of sale.

Metallic Paints.

In response to a steady demand and a free movement of supplies into the channels of consumption, prices remain firm, particularly for the better qualities. Manufacturers express themselves as being well pleased with the fall business thus far, which, it is claimed, exceeds that for the corresponding period last year. Manufacturers are quot-

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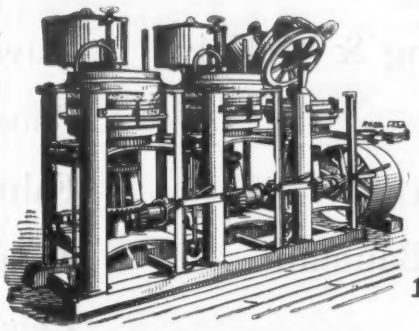
MILLS and MIXERS



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ing $19@21 for the standard qualities of brown, and $16@20 for red, less discounts, according to brand and terms of sale. Inferior makes of brands are quoted at lower prices.

Miscellaneous.

BARYTES.—Aside from occasional sales of carload lots for prompt delivery and the usual movement of parcels on contracts to cover urgent wants, nothing of special interest has occurred. There were reports of sales of carload lots of strictly fine milled prime white qualities of domestic grades on the spot and to arrive at $16@17.50 and foreign at $17.50@19, and floated at $18@19 and $19@21, respectively, according to quality, milling and terms of sale. Off-colored domestic grades are held at $11 to $15, and No. 2 at $13.50, according to quantity, quality and seller,

CHALK.—Spot stocks held by some manufacturers here have been materially reduced, as a result of light arrivals, due to the scarcity of ocean freight room. This served to create an inquiry for parcels for prompt delivery. Quotations remain unchanged at $3@3.25 per ton for the standard grades, according to quality and quantity and terms of sale.

CHINA CLAY.—The spot supply is very light, owing to light arrivals, due to the shipments being restricted from the primary market, on account of the scarcity of ocean freight room abroad. Inquiries have increased for goods for prompt delivery, but as a result of the scarcity of spot goods, business has been light. It is estimated, however, that parcels which are due here this month will relieve the stringency here. Quotations are firm for carload lots of imported ex store at $11.50@12.50 per ton, according to quality and terms of sale. Carload lots of domestic are held at $8.50@9 per ton, delivered, according to quality and seller.

FULLER'S EARTH.—Trade has not been brisk, and sales for the week amount to a moderate volume. Quotations rest on a steady basis and spot carload lots of powdered are held at 80c., but for smaller quantities higher prices are named, according to size of order and terms of sale.

PUTTY.—Trade in the various qualities continued to be fairly brisk and new orders, as well as deliveries on contracts, represented a fair volume. Prices are being fairly well maintained, and only in some instances slight cuts in quotations are being made. Parcels of commercial are held on the basis of $1.15 and upward on deliveries of not less than 10 tubs, and $1.20 per 100 lbs. on deliveries of 5 tubs or bbls., and bladders at $1.65 and upward per 100 lbs., according to quantity, and linseed oil at $1.70@1.75 f. o. b. New York, less discounts, according to quantity and terms of sale.

TALC.—The market presents no new features of interest and under a seasonable demand for parcels to fill regular requirements, prices remain about steady in tone. For parcels for prompt shipment the demand is fair and occasional carload lots at current prices have been traded in. Spot carload lots of domestic are quoted at $15 and upward, according to quality and milling, and carload lots of French are quoted at $15@30, and Italian at $20@75 per ton, according to quality, milling, quantity and terms of sale.

TERRA ALBA.—Aside from the usual movement of supplies into consumption and a seasonable demand, the market, generally speaking, remains steady in tone. Spot carload lots of American No. 1 are quoted at 60c. and No. 2 at 45c. and upward, according to quality, quantity and terms of sale.

WHITING.—The withdrawals on outstanding contracts for the week have been large, owing in part to the near approach of the closing of navigation on canals and lakes. Manufacturers continue to quote commercial No. 2 at 40c., and the standard qualities on the basis of 43c. for commercial in lots of and over 500 bbls., or 75 tons, f. o. b. factory, less the usual discounts, according to terms of sale, and 3c. advance for lots of 100 to 500 bbls., or 15 to 75 tons, same terms.

Glues.

In response to the favorable weather business in the various grades of the manufactured glues has been brisk and shipments on orders as well as new business amounted to fair proportions. Manufacturers continue to maintain prices for parcels of extra white at 18@25c., brown footstock at 8@11c., low grades at 9@12c., and common bone at 7@9c., according to quantity and seller. Trade in fish glue liquid has improved and lots of 5 bbls. of 50 gallons are bringing 50c. to $1.25, according to quality, quantity and seller.

Varnish Gums.

The market for practically all grades and kinds of gum shows firmness in sympathy with stronger advices from primary markets and a scarcity of supplies both here at the producing centers. It is claimed that the supply of all of the superior and high grades of Kauri gum is constantly growing smaller from year to year and indications point to the supply in the near future not being adequate to meet the demand. It is pointed out that under the above conditions varnish manufacturers will in all probability eventually be forced to pay higher prices for the better grades of white and hard brown gums. Grades of hard brown and white kauri gums from 2 and up are very scarce in New Zealand. In Auckland supplies have been cleaned up by the good demand from Europe and full prices were paid, consequently offerings from the later point are exceedingly light at prohibitive prices. At Batavia the supply of damar is practically depleted and no further shipments of importance will be made until the new crop begins to come in or about April. Meanwhile there will be a decided shortage in the available stocks and an advance in prices is assured. Varnish makers here have held aloof for some time, owing to the high price for spirits of turpentine, but they are being forced to enter the market now to replenish their stocks, and sales of spot parcels and lots for prompt delivery show an increase. Spot parcels are being firmly held and holders are now quoting parcels of Manila nubbles No. 1 at 6@6½c.; No. 2 at 4¾@5c., and chips, Nos. 1 and 2, at 4¾@5c. and 2¾@4¼c., respectively. Kauri Nos. 1, 2 and 3 are quoted at 28½@32c., 20½@23c. and 13½@16c., respectively, according to the grading and terms of sale. Batavia damar is firm at 14¼@15c., and Singapore is quoted at 9@10c., according to terms of sale. Manila pale is steady at 9@17c., according to quality, etc. Brown kauri chips, ordinary, are quoted at 6½@7½c., and brown extra chips at 9½@15c., while white and brown dust are held at 6½@9c. and 3@5c., and brown sugar at 7@9c., all according to grading. Pure chips from 4x and 5x are quoted at 27½@28½c. and prime white at 15@24c., all according to grading. Sales of spot double and triple cross at 38@43c. and 42@45c., respectively, have been made.

Window Glass.

Recent developments in the window glass industry, in relation to the wrangle between rival unions, point to a favorable settlement of the legal standing of the wage scale which has been signed by the officials of the unions and the manufacturers. The manufacturers of the mountain district (American Glass Manufacturers' Association) it is intimated, may start up their plants at any moment, pending a decision at meetings to have been held recently. In response to the cooler weather the demand in the local market has increased and sales for the week, as well as orders, are larger in volume. Prices are being firmly held by jobbers and, owing to the strong statistical position in the East, further advances in prices are not improbable.

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(Special Correspondence to the Reporter.)

Chicago Seed and Oil Market.

Chicago, Oct. 12, 1905.

Liberal selling by the country has been met this week by a good buying movement, which was apparently for the most part of a speculative nature, and the support which was thus given to the market prevented the declines which were freely predicted. At one time the market was rather weak, notably on Saturday, when there was a heavy selling pressure which was not met by the support sufficient to prevent the break. On that day the market closed at 97½c. for cash at Duluth and 97½c. for the October option. On Tuesday the market was again depressed to the same figure, but on the closing day of the current week the market turned strong, the buying being of a more definite character and prices were lifted 1c. on cash and the nearby options. The strength which the market is showing at the present levels is something of a disappointment to the bears, who were figuring that there would be no stay until the prices had sought a much lower basis than that upon which it now stands. The receipts for the week, however, have not been what the trade was looking for, and the stubborn fight which was put up by the bulls made it a comparatively easy matter to stop the attempted raid. There are two reasons which are put out by those who are now playing for a lower market, for the failure of the market to show any big net loss for the week. One is that the farmer is not yet ready to market his flax, and the other is that there is a car shortage, which amounts almost to a famine. The movement of the other grains, particulary wheat, to the trade centers is very heavy, and as the farmers are trying to market that cereal first, the bears say that it will be some time before the full weakness of the seed situation is seen. While they assert that there does not seem to be any reason why the market eventually should not work lower, they are of the belief that there is some danger in selling short for October delivery, below the present prices. If the congestion caused by car shortage is not relieved within the next two weeks, some of the shorts may be forced to cover at a considerable loss. How much of truth there may be in the car shortage theory there is no doubt that many of the seed raisers are averse to sending the seed to market at such prices as they now would be able to obtain for them. As has already been pointed out, the farmer is not the dependent creature that he once was. There are comparatively few cases in which the seed raiser is forced to market his seed quickly in order to realize on it. If he is of the opinion that there is going to be a higher market in the future, it certainly seems reasonable to assume that he will take advantage of the chance which is offered him and wait for a better price. The process will work in two ways—a belief that the market is going higher will cause the receipts to fall away, and, in proportion as the shipments from the country are held back, the price for the seed will advance. One operation, therefore, appears to wait upon the other. The fact that the arrivals of seed at the principal markets of the Northwest have been little heavier this week than last week, and that they are running only about even with those of the previous year, when it is an admitted fact that the yield is heavier, and that the crop is an earlier one, makes the position of the buyer look stronger than it would appear at first sight. There is one strong element against the advance of prices however, and that, as has already been referred to, is the attitude of the American Company which is not giving any support to the market. How far the seed trade can be swayed this year by the position which that company assumes is problematical, but there can be no doubt that it exercises great influence. Only let it be known that the company is in the market for seed, and there will be an advance in the price which will gratify the strongest bull in the trade. Naturally, therefore, it is to the interest of the big company to hide, as far as it is possible, their line of action. So far as it can be ascertained the company is bearish. It is the belief that they have sold a big line of seed, and that it is essential to the maintenance of their position that an advance be prevented before they are ready to buy back the seed at a lower figure than that at which they have unloaded it. If they can succeed in doing this, they will be in a position almost as strong as the one which they occupied last year. There is not heard so much talk of a tremendous crop as there was a few weeks ago. There is a tendency on the part of some of the prophets of a bumper crop to hedge. Those who were freely declaring that the yield would run from 28,000,000 to 30,000,000 bushels, have now reduced their estimates to 27,000,000 bushels, which is the generally accepted maximum figure on the production of 1905. This would not be so heavy a crop if it were not for the fact that there is already a big stock of oil on hand. While it is true that all of the old oil is in the hands of one company, it is hard to carry the load when the same company has been selling oil based on the seed prices which are, and recently have been prevailing. It means practically that this year's crop of oil only has been sold, and that the old supply practically remains intact, and that its commercial value is no more than that of the new crop oil. It is not surprising therefore that the big crusher has been selling the seed market off and that it is waiting for an opportunity to replace its old line of seed by cheaper flax which will mean a profit. It has been aided very materially by the foreigner, who, greatly to the disappointment of the country, has not come into the market as it was believed he would when the price went below the $1 point. The truth appears to be that the foreign crusher has no room for the product of his seed. He could sell the cake, but the cellars are said to be full of oil, and crushing operations at the present value of oil in the foreign markets, even though the seed price is low, cannot be figured as a profitable thing.

Daily car lot receipts of seed at Chicago for the week ending Oct. 11, 1905, and for the corresponding week in 1904:—

	This week.	Year ago.
Thursday	1	2
Friday	..	2
Saturday	1	..
Monday	4	9
Tuesday	..	5
Wednesday	5	..
Totals	11	18

Daily car lot receipts of seed at Duluth and Minneapolis, for the week ending Oct. 11, 1905, and for the same week last year:—

	Minneapolis. This week.	Minneapolis. Year ago.	Duluth. This week.	Duluth. Year ago.
Thursday	52	62	65	55
Friday	46	57	85	50
Saturday	50	65	72	66
Monday	98	113	81	92
Tuesday	72	45	248	198
Wednesday	59	65	78	63
Totals	377	407	629	524

Shipments of flaxseed from the three principal markets of the Northwest for the week ending Oct. 11, 1905:—

	Chicago.	Minneapolis.	Duluth.
Thursday	900	47,880	193,815
Friday	804	20,149	250,468
Saturday	....	7,980	168,585
Monday	....	5,700	24,500
Tuesday	702	16,640	115,668
Wednesday	....	24,320	20,527
Totals	2,406	122,569	782,563

The following exhibits the number of cars received at the principal markets for the crop year to date, with comparisons for the two previous years:—

1905	3,828
1904	3,507
1903	5,409

Stocks of seed in public warehouses, Saturday, Oct. 7, 1905, and on the corresponding days last week and last year:—

	Sat., Oct. 7, 1905.	Sat., Sept. 30, 1905.	Sat., Oct. 8, 1904.
Duluth	3,539,000	3,873,000	4,026,045
Minneapolis	490,000	431,000	738,774

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Daily closing prices of flaxseed at Chicago, week ending Oct. 11, 1905:—

	No. 1 N. W.	Cash.	S. W.
Thursday	1.02	96	96
Friday	1.02	96	96
Saturday	1.02	96	96
Monday	1.00	94	94
Tuesday	1.00	94	94
Wednesday	1.01	95	95

Daily closing prices of flaxseed at Minneapolis, week ending Oct. 11, 1905:—

	Cash.	Arrive.	Oct.
Thursday	97½	97½	97½
Friday	97¾	97¾	97¾
Saturday	96¼	96¼	96¼
Monday	96¾	96¾	96¾
Tuesday	96½	96½	96½
Wednesday	97¾	97¾	97¾

Daily closing prices of flaxseed at Duluth, week ending Oct. 11, 1905:—

	Cash.	Arrive.	Oct.	Nov.	Dec.	May.
Thursday	98¾	98¾	98¾	98¾	98¾	1.02¾
Friday	99	99	99	99½	99½	1.02½
Saturday	97½	97½	97½	97¾	97¾	1.02
Monday	97¾	97¾	97¾	98	98	1.02
Tuesday	97½	97½	97½	98	98	1.02
Wednesday	98½	98½	98½	99¼	99¼	1.03¼

LINSEED OIL.—The market remains firm, though demand for futures has fallen away to a small proportion of what it recently was. The paint trade appears to be well filled up for the future, though not all of them are at present supplied with any big quantity. This creates a demand for spot oil, and that branch of the trade is relatively more active than the future market. Many of the buyers who contracted ahead for oil did not secure much for immediate needs. Customers of some of the crushers were led to believe that prices were to go lower and that a wait would be beneficial to their pocketbooks. The result is that buyers of oil are now taking the cash product, though it is doubtful if many of them have gained much if anything by the wait. Since the crushers have been in operation for practically a month, there is no scarcity of oil, though a preference is still being shown in many cases for the old oil, which is chiefly in the hands of one company. The recent weakness in cake stayed the tendency of oil to break, but as cake has again firmed up it would not be surprising to see a slightly easier tone in oil. Spot oil is now quoted 36@37c., and futures at 33c.

LINSEED CAKE.—The foreign demand for cake is good. The weakness which was noted last week was apparently only temporary and brokers report a good inquiry for the product. There is, in truth, little cake now being offered for shipment before the first of the coming year. The amount of cake already contracted for at high prices has been tremendous, and it is doubtful if a great deal more could be turned out by the crushers. Up to Jan. 1. cake is salable at $25.50@26 per ton, basis Chicago. The foreign buyers are insistent, the situation abroad being a peculiar one. All of the oil makers are loaded up with oil. Their storage capacity is limited and as they cannot crush the seed for the case and sell the oil at a profitable figure, they are forced to operate in a small way only. Practically all of the crushers are running on part time only, if at all, and yet there is a shortage of fodder which makes it essential that feeders should have cake. It is this which is forcing the foreign cake buyers to call largely upon the American crushers and makes it evident that strong prices will prevail for the balance of the year.

CORN OIL.—The trade is slow. Demand from the foreigner is light and there is no buying of any importance by the domestic user of the oil. The output is limited to the supply demand, so that there is no surplus of any great size to figure with, as is frequently the case in other oils. So far as the local trade is concerned there has been no change in the prices at which the oil is quoted, though it is probable that some could be bought under the prices which are given out. For Chicago basis the price is $3.50 per hundred in barrels.

LARD.—The demand for cash lard has shown some improvement during the past week, and the close to-day finds the price for the product on a higher plane than that of one week ago. The situation in the trade at this time is much better than it has been for some time past, though there is still noted a tendency in the speculative trade to go slow. The big interests have not sold so freely lately and the outsider, who is afraid of a manipulation in the product, finds that it is safer to wait awhile. The advance in cash lard has been made this week in spite of the fact that the market for hogs has been lowered, though the 2½@5c. advance in the speculative market to-day was partly due to the better tone on the hog trade, showed for the first time this week. The stocks of lard are diminishing rather freely, there being a good export, as well as a large domestic demand. The close found cash lard to-day at $7.20 and loose at $6.97½. There has been a moderate demand for leaf lard, the price closing $6.97½. Neutral lard is quotable 9@9¾c.

STEARINES.—Market dull and weak and demand very small. Packers still asking for prime oleo 7½c. here and 7¾c. on the Missouri River; No. 2 nominally 6¾@7c.; lard, 7⅝@7¾c.; mutton, 7¾c.; tallow, 5¼@5½c.; grease, 4¼@4¾c.

OLEO OIL.—Foreign markets reported lower at 58 florins asked and 57 florins bid. Local market, 9⅝@9¾c. for extras; second grades, 9⅜@9⅝c.; No. 3, 7@7½c.; oleo stock, 6½@9¼c.

TALLOWS.—Market quiet and unchanged. Choice edibles, 5½c.; ordinary, 5¼c.; prime packers', 5@5½c.; prime city, 5¼@5⅜; choice country, 4⅞@5c.; No. 1 packers', 4¼@4⅝c.; No. 1 renderers', 4⅛@4¼c.; No. 1 country, 4¼@4⅜c.; "B", packers, 3½@3¾c.; "B" country, 3⅝@4c.; No. 2 packers', 3½@3¾c.; No. 2 country, 3½@3⅝c.

GREASES.—Market rather quiet and prices steady. Choice white, 4⅞@5c.; "A", 4½c.; "B", 4@4¼c.; fancy yellow, 3½c.; ordinary, 3¼@3⅜c.; house grease, 3⅜@3½c.; brown, 3¼c.; bone, 3⅜@4c.; glue grease, 3⅜@4c.; neatsfoot stock, 3⅝@5c.

COTTONSEED SOAP STOCK (Barrels).—Concentrated on a basis of 63-65 per cent. F. A., 1¾@1⅞c.; regular on a basis of 50 per cent. F. A., 85c. per hundred.

Closing Telegram.

Duluth flaxseed closed, cash and October, 98¾c.; November, 98¾c.; December, 98¾c.; May, $1.03. Minneapolis, cash and October, 98c. Chicago, No. 1 Northwestern, $1.01; cash and Southwestern, 95c.

(Special Correspondence to the Reporter.)

A Ruling on Medicines Containing Alcohol.

Washington, Oct. 13, 1905.

The Commissioner of Internal Revenue has made two auxiliary rulings under circular No. 673, which requires a special tax to be paid by druggists and general merchants retailing medicinal preparations containing excessive quantities of alcohol. The preparations ruled upon are malt extracts and so-called essences of extracts commonly used for culinary purposes, but said to be employed in prohibition districts as beverages. With regard to the sale of malt extracts, the commisisoner in a letter to the collector of internal revenue for the Omaha, Nebraska, district says:—

"Your letter of the 3d instant has been received, inquiring as to the special tax liability, if any, of manufacturers of malt extracts composed of fermented malt liquor and drugs, such as 'Pabst tonic,' 'hop tonic,' and similar compounds, in view of the ruling in Circular No. 673 concerning alcoholic compounds labeled as medicines and held out to the public as remedies for diseases.

"Although that ruling has special reference to compounds of distilled spirits and drugs or other medicinal substances, yet in spirit and meaning it may also be extended to include other alcoholic liquors; and as fermented malt liquor, it is for the manufaceurers of every such malt extract to show that it comes within that clause of this circular, in which it is stated that 'where substances undoubtedly medicinal in their character are combined with * * * alcoholic liquor and are used in sufficient quantity to give a medicinal quality to the liquor other than that which it may inherently possess, such compound is, of course, not to be included in this ruling.''

The question cubmitted as to the special tax liability of retailers of essences and extracts comes from a retail druggist in the West, who also inquires as to whether circular 673 is designed to cover alcoholic toilet articles of any kind. The commissioner's reply, which is very comprehensive, is as follows:—

"Your letter of the 3d instant has been received, inquiring as to the bearing of the ruling concerning alcoholic compounds labeled and sold as medicines, in Circular No. 673, herewith inclosed, upon such preparations as bay rum and other toilet articles containing large quantities of alcohol, and upon the various preparations sold as essences of lemon, vanilla, cinnamon, etc., and containing, as you state, 'from 25 per cent. to 80 per cent. alcoholic strength.'

"The ruling does not apply to toilet articles, whatever the quantity of alcohol contained therein may be; nor does it apply to the various essences or extracts to which you refer, if these preparations are such as are known to the legitimate grocery or drug trade as household articles for culinary and other uses, and not as beverages.

"Where, however, alcoholic compounds called 'essences of lemon, vanilla, cinnamon,' etc., of so-called tincture or essences of ginger, contain, as you state, 'a mere trifle of medicament, the main constituent being alcohol,' and these preparations which you further say are 'usually sold by country merchants, especially in prohibitions districts,' are found by the local internal revenue officers or agents to be generally sold or used as beverages, every merchant thus selling them without holding the requisite special tax stamp as a liquor dealer under the internal revenue laws, will be liable to criminal prosecution, in addition to the assessment against him of special tax and penalty; and the manufacturers of these so-called essences and extracts, who are shown by the facts elicited to have made these alcoholic compounds for sale in prohibition districts, will be held liable to special tax and penalty as rectifiers and liquor dealers."

The commissioner is in receipt of many similar inquiries, but the principles laid down in the two rulings above quoted cover all these questions very comprehensively

Centrifugal Oil Filter.

Consul Harris, of Chemnitz, reports a valuable process for filtering oil. It ought to commend itself to parties having large quantities of oil that is mixed with refuse matter. He says:—

The keen competition which is making itself felt in practically every article of manufacture which is brought on the market to-day has had the effect of taxing human ingenuity to the utmost in order to invent and devise new machines and apparatus which will lessen the cost of production in large manufacturing plants. Refuse matter which a few years ago was cast away as something absolutely useless is now utilized by some newly found method, by which it enters into some phase or process through which other articles are manufactured. This has been no better demonstrated in recent years than by the various kinds of methods thought out for the purpose of minimizing the cost of lubricating oils. The use of machinery to-day is such that the demand for oils has become one of the most important items of expense, and experience has shown that the former practice of discarding oil once used very materially increases the cost of production. Any process which enables oil once used to be filtered and cleaned for use again is found to be a great saving of expense over the original cost of the same oil. In every large factory where machinery is used to any extent there is usually a surplus of coagulated mucous oil, which, according to the old method, was placed on a sieve sort of arrangement and permitted to gradually trickle through. This primitive method, however, is ineffective in forcing all the oil out of the mass of concrete matter, and is also a great waste of time.

One of the most complete and radical methods of separating oil from coagulated substances is the application of centrifugal force. This method has already been adopted in America under different forms, but the apparatus of Gebruder Heine, of Viersen, Rheinland, Germany, may contain some points which will interest manufacturers having factories and mills in which large quantities of lubricating oils are necessary.

This oil filter consists of a perforated cylinder shaped drum, in which the concrete mass is placed. Only five minutes' time is necessary by centrifugal force to drive every particle of mucous oil out of the mass placed in the cylinder. This oil is drained into a separate vase, from which it can be removed ready for use.

High Grade Lubricants.

The attention given to the higher grades of lubricants has recently been very marked. The experiments and investigations carried on by the various societies of engineers has demonstrated that a large percentage of power is gained by the use of what is known in the trade as bright cylinder stocks. Refinement of mechanical construction has necessitated an oil possessing not only the highest perfection of lubrication but free from all impurities, such as coke, tar, free carbon, etc.

To manufacture an oil of this nature, having at the same time a very high viscosity and flash test, requires much care and a large outlay of capital. As bright stock is obtained only from Tiona crude the output is necessarily limited.

The Conewango Refining Co. of Warren, Pa., appear to have secured an international reputation for their two grades of bright cylinder stocks, called H-M and L-M. Many consider these brands of oils the highest grades of cylinder lubricants on the market, which is exemplified in the growing demand. To a large extent the cheaper oils are being entirely discarded and the best Pennsylvania lubricants, notwithstanding their increased cost, occupy the first place among the world's lubricating oils.

The friends of Edgar J. Lauer, of Magnus & Lauer, dealers in essential oils, of this city, who live between Fortieth and Ninety-sixth streets and Lexington and Eighth avenues, will have the opportunity of lending their support to Mr. Lauer's condidacy for the Fourteenth Judicial District Municipal Court bench. This court was created by the last session of the Legislature and Mr. Lauer received the Republican nomination for the place last week. He has been a member of the New York bar for thirteen years, serving three years as secretary to Justice Blanchard of the Supreme Court. Mr. Lauer became a member of Magnus & Lauer two years ago, succeeding to his late brother's interests.

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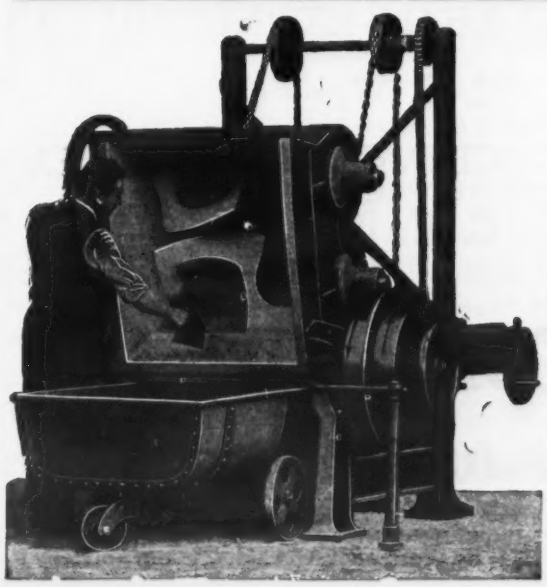

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OIL MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 31.

Saturday Noon, Oct. 14, 1905.

Vegetable Oils.

LINSEED OIL.—The demand for parcels for prompt delivery has been fairly active throughout the week and prices are being firmly maintained. The purchases were principally confined to small lots to fill the regular requirements of consumers, and crushers continue to show a disinclination to book orders for large quantities for prompt delivery. Aside from this no new features or developments of an interesting character have appeared on the surface of the market, and the position for futures remains practically unchanged. For October delivery in carload lots or less crushers are naming 43c. as positively lowest. Only in occasional instances State crushers offered December at 35c. and October and forward at 36c., but few sales have been made. Buyers are still disinterested and show a preference for holding back, they pending further developments and a probable easing off in prices. Quotations closed steady for State and Western raw at 43@44c., and city raw at 45@46c. For boiled the usual advance of 2c. per gallon all around is named. Calcutta remains nominally unchanged at 62c.

COTTONSEED.—The features in the market has been the enormous demand from exporters for parcels for nearby delivery and the investments by speculative manipulators throughout the early part of the week. The sales for exports reached an unprecedented volume and served to force up October options to 25½c., which shows a gain of ½c. from the closing prices on Monday and an advance of 1¼c. from the bottom price. Short interests have been bearing and hammering particularly May options, which at one time sold at 27¼c. and is now 27½c. bid. In the advent of unabated export buying indications point to check any serious decline. According to the belief of many traders prices have reached a level which will be held for the present. Early in the week little has been done in cash oil anywhere and crude was quoted entirely nominal at 19½c. Later on, however, crude oil price broke under free sales and selling pressure in the Southeast to 18½c. for October-November delivery followed by bids of 18c., but exporters and cash buyers remained out of the market, as they have ample stock of prime oil and due in part to the season for choice oil being practically closed. On Thursday, however, in response to buying by foreign houses, the market became active and sales to European soapmakers embraced some 25,000 to 30,000 bbls. for prompt shipment from here and near deliveries were taken by exporters, which embraced prime. Yellow winter oil received increased attention from exporters at prices ranging from 28½c., 29c.. Crude also advanced ½c. to 18½c. 19c. and sales of ten tanks at Georgia and Alabama at 19c. have been reported with free bids of 18½c. In the early trading on 'change on Thursday, speculators and the trade bought and October advanced, which was mostly noticeable in new crop futures. On the hand, however, refiners did not abstain from selling. Under light offerings of October the price advanced ½c. and May jumped up ¼c. Toward the close nearby options advanced. Offerings of crude oil at the South were limited to small lots and there continued a good export demand from soapmakers who are replenishing their stocks with marked freedom.

Transactions in detail on 'Change were as follows:—Monday the opening for options was steady and sales embraced 100 bbls. May at 20½c.; 100 May at 20½c.; 500 October at 25c.; 500 October at 25c.; 500 December at 25⅝c.; 900 May at 27½c. Receipts, 855 bbls. Tuesday the tone was steady but buyers were indifferent. Sales included 600 May at 27¼c. and 500 May at 27¼c., with the close quiet. Receipts, 100 bbls. Wednesday prices weakened in tone and sales embraced 100 October at 25c.; 1,600 December at 25½c.; 2,200 May at 27¼c., with the close showing total sales of 3,300 bbls. May at 27¼c., 1,600 December at 25½c. and 1,200 October at 25c. Receipts, 310 bbls. Thursday the demand was active and prices firmer and higher. Sales included 3,700 May at 27½c., 200 October at 25c., 200 October at 25½c. Receipts, 1,475 bbls. Friday the market was firmer but less active and offerings of nearby oil were light. Sales were:—1,600 May at 27½c., 100 January at 26c., 200 October at 26c., 100 December at 26¼c., 100 November at 26c.; all showing advances with other months quoted nominal.

EXPORTS OF COTTONSEED OIL FROM NEW YORK, BY COUNTRIES.

	For week ending Oct. 12, 1905.	Since Sept. 1, 1905.	Same time last year.
Abyssinia	....	36	.....
Africa, Algiers	100	100	875
Egypt	245	485	350
South	....	243	283
West Coast	....	70	.....
Argentine Republic	5	35	232
Australia & New Z.	14	44	477
Austria	104	1,368	2,467
Belgium	1,200	1,350	51
Brazil	106	505	1,803
British Guiana	45	300	136
British West Indies	102	488	806
Central America	....	11	5
Chile	....	158	221
Cuba	116	418	167
British West Indies	146	146	9
Denmark	....	345	500
England	340	2,680	1,223
France	3,605	10,005	2,885
French West Indies	....	403	876
French Guiana	....	56	53
Germany	975	1,415	1,800
Gibraltar	100	440	.....
Italy	249	3,086	6,584
Malta	....	.....	250
Mexico	1	60	41
Netherlands	1,100	1,125	2,731
Newfoundland	....	.....	55
Norway & Sweden	....	125	356
Nova Scotia	....	5	.....
Porto Rico	....	7	47
San. Dom. & Hayti	....	397	462
Scotland	200	850	50
Turkey	....	1,075	100
U. S. Colombia	107	465	98
Uruguay	59	406	736
Venezuela	....	4	23
Totals, bbls.	8,920	28,490	26,826

EXPORTS OF COTTONSEED OIL FROM NEW ORLEANS, BY COUNTRIES.

	For week ending Oct. 12, 1905.	Since Sept. 1, 1905.	Same time last year.
Austria	....	.....	3,250
Belgium	850	850	1,500
Cuba	....	.....	75
Denmark	....	200	150
England	....	650	1,960
France	....	.....	2,100

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TRADE ITEMS.

D. D. Kirby, of Weaver & Sterry, of this city, has been on a brief sojourn at Atlantic City with his family.

A meeting of the New York Wholesale Drug Trade Bowling Association has been called for October 20, to arrange plans for this season's tournament.

Germany	565	1,825	1,898
Ireland	....	25	.....
Italy	....	.....	60
Netherlands	....	1,960	5,070
Scotland	....	100	.....
Totals, bbls.	1,415	5,610	16,939

EXPORTS OF COTTONSEED OIL FROM BALTIMORE, BY COUNTRIES.

	For week ending Oct. 12, 1905.	Since Sept. 1, 1905.	Same time last year.
Belgium	....	100	.....
Germany	....	300	200
Netherlands	....	.....	350
Scotland	....	.....	200
Totals, bbls.	....	400	750

EXPORTS OF COTTONSEED OIL FROM NEWPORT NEWS, BY COUNTRIES.

	For week ending Oct. 12, 1905.	Since Sept. 1, 1905.	Same time last year.
England	....	.....	104
Germany	....	.....	2,033
Totals, bbls.	....	.....	2,137

EXPORTS OF COTTONSEED OIL FROM GALVESTON, BY COUNTRIES.

	For week ending Oct. 12, 1905.	Since Sept. 1, 1905.	Same time last year.
Austria	....	.....	50
Belgium	....	.....	1,980
Mexico	....	52	.....
Germany	....	.....	50
Totals, bbls.	....	52	2,080

TOTAL EXPORTS AT PRINCIPAL PORTS.

From—	For week ending Oct. 12, 1905.	Since Sept. 1, 1905.	Same time last year.
New York	8,920	28,490	26,826
New Orleans	1,415	5,600	16,939
Baltimore	....	400	750
Newport News	....	.....	2,137
Galveston	....	52	2,080
Totals, bbls.	10,535	34,552	48,732

The following are the official returns of the exports of cottonseed oil, in gallons, during the months of August, 1905 and 1904, furnished by the Bureau of Statistics, Washington:—

	1905.	1904.
Arizona	19	.....
Baltimore	5,000	35,000
Boston	.....	.....
Brazos de Santiago	1,690	.....
Champlain	39,534	.....
Corpus Christi	30,716	19,700
Detroit	9,210	12,008
Galveston	.....	64,750
Huron	20,817	22,942
Minnesota	3,402	.....
Mobile	.....	1,000
New Orleans	563,120	586,145
Newport News	.....	35,880
New York	1,315,786	918,006
Norfolk & P.	83,720	128,388
North & South Dakota	150	.....
Paso del Norte	55	.....
Philadelphia	5,000	.....
Saluria	93,650	79,863
San Francisco	1,123	210
Savannah	60,293	23,850
Vermont	75	.....
Total, gallons	2,233,360	1,927,850

TOTAL MONTHLY STATEMENT.

	1902.	1903.	1904.	1905.
Jan.	3,533,840	1,252,774	3,291,025	5,195,440
Feb.	2,201,824	2,908,178	3,441,645	6,465,620
March.	2,272,824	3,025,721	3,462,476	6,202,894
April	2,225,276	2,038,959	2,293,367	4,296,011
May	2,775,577	2,109,348	1,761,734	5,972,701
June	1,761,937	1,283,174	2,463,628	4,737,825
July	1,876,842	845,567	2,121,043	1,832,033
Aug.	1,626,290	1,187,819	1,927,850	2,233,360
Sept.	2,725,693	1,267,153	2,188,705	.....
Oct.	4,091,322	1,572,948	2,969,954	.....
Nov.	4,696,601	3,441,762	5,226,368	.....
Dec.	5,063,109	3,987,295	4,264,877	.....
Totals.	34,870,017	27,865,212	35,412,672	.....
Average	2,905,835	2,322,101	2,951,050	4,616,985

(Special Cablegram to the Reporter.)

Liverpool Cotton Oil Market.

Liverpool, Oct. 13, 1905.

Cotton oil is steadier at £16 10s.; cake and meal inactive at £6; seed steady at £5 7s. 6d. Egyptian, and £5 2s. 6d. for Sea Island.

(Special Cablegram to the Reporter.)

Rotterdam Cotton Oil Market.

Rotterdam, Oct. 13, 1905.

The market is dull. Prime summer yellow, winter months' shipment, 21½ florins; butter oil, winter months' shipment, 22½ florins per 100 kilos.

(Special Cablegram to the Reporter.)

Hamburg Cotton Oil Market.

Hamburg, Oct. 14, 1905.

The market is very quiet. Prime summer yellow, prompt shipment, 36 marks; off oil, 34½ marks per 100 kilos, f. o. b. Hamburg. Prime Texas meal, prompt shipment, 129 marks; cake, 126 marks; bolted, 132 marks per ton, c. i. f. Hamburg.

(Special Cablegram to the Reporter.)

Marseilles Cotton Oil Market.

Marseilles, Oct. 13, 1905.

The market is steady, with buyers of prime summer yellow at 42 francs for October and 43 francs for January; prime winter yellow, January-April, at 48 francs, with sellers 1 franc dearer.

(Special Cablegram to the Reporter.)

Trieste Cotton Oil Market.

Trieste, Oct. 13, 1905.

The market is dull, and prices are nominal. Prime summer yellow, winter months' shipment, 43 francs; butter oil, winter months' shipment, 48 francs per 100 kilos, c. i. f. Trieste.

(Special Correspondent to the Reporter.)

Antwerp Cotton Oil Market.

Antwerp, Oct. 5, 1905.

Our market is quiet. Spot sold at parity of 42½ francs, c. i. f., and some business has been done by American exporters for October-December shipment at 42 francs, c. i. f., which is still a good price, as compared to English cotton oil, which is obtainable at 40½ francs, c. i. f. However, as linseed oil has advanced a little further and is to-day at a parity of 39½ francs, c. i. f. Antwerp in barrels, a better demand for American cotton oil is likely to spring up in the near future.

(Special Telegram to the Reporter.)

Kansas City Cotton Oil Market.

Kansas City, Oct. 14, 1905.

Cotton oil market steadier. Mills' offerings restricted on account of light seed receipts. Sales prime crude at 19c. f. o. b. favorable points and 18½c. freely bid elsewhere, but without result. Bleachable prime summer yellow sold basis 20⅞c. f. o. b. Texas.

(Special Telegram to the Reporter.)

Texas Cotton Oil Market.

Dallas, Oct. 14, 1905.

Some demand for October shipment at 19c. for oil and $24@24.50 for meal f. o. b. Galveston.

(Special Telegram to the Reporter.)

Dallas Cotton Oil Market.

Dallas, Oct. 14, 1905.

Sales of oil to-day 19c. October and first half November. November could be sold same price. Bleachable yellow sold yesterday 20½c. Seed receipts extremely light and mills disposed to wait for seed before selling. Seed prices now $10. October meal sold to shorts to-day $24.50 shipside Galveston, short ton.

(Special Telegram to the Reporter.)

New Orleans Cotton Oil Market.

New Orleans, Oct. 14, 1905.

Crude easier at 19c. Valley, and Texas refined in fair demand at 22c. for all summer yellow, and 22½c. for prime. Spot cake active at $26.75 per long ton shipside, October shipment; from mill, 25c. less; November, 50c. less. Meal, 50c. per ton, discount all positions.

CHINA WOOD OIL.—Light supplies on the spot and at China, serve to maintain a firm tendency to prices. The demand from Europe and from this country continues to be active, but in the absence of free offerings business is being held in check to some extent. Additional sales of sizable quantities of oil for forward shipment from China at about 6¼@6⅝c. have been made. Spot and nearly parcels afloat are firm at 6½@6⅝c., but sales have been few, owing to limited available supplies.

ROSIN OIL.—Prices have been advanced in sympathy with the further rise in values of low grades of rosin and manufacturers have raised quotations 1c. to the basis of 23c. per gallon for spot carload lots of first run of rosin oil. Prior to the rise in prices sales embracing about 600 bbls., and upward for prompt and forward shipment on the basis of 22c. for first run have been made.

Cocoanut Oils, Etc.

CEYLON.—Cables note a stronger undertone to prices for parcels in all positions and sellers are asking ⅛c. advance. There has been a fair business done in spot carload lots at prices ranging from 6¼@6¾c. Parcels for shipment in November-January to New York are held at 6c. and to the West at 6¼c. We hear of no invoice sales and trade in this respect has been quiet.

COCHIN.—Prices are very firm owing to scarcity of supplies on the spot which are being held at 7¼@7½c., according to quantity and package. Parcels for forward shipment are held at 6⅞@7c., but in the absence of buyers no invoice sales of importance change hands, and trade has been quiet. Only small sales to meet urgent wants have been effected.

CORN.—Conditions governing this market remain unchanged and the undertone to prices is easy with free offerings of parcels for forward delivery at 3.35c., which resulted in small sales. Occasional sales of carload lots at 3¼c. are reported. Jobbing parcels are meeting with average demand at prices ranging from 3.40@3½c.

PALM.—The demand for Lagos oil has been active, but, owing to no supplies to be had, business was restricted. Prices are firm and high, owing to strong advices from primary markets, and spot parcels are quoted nominal at 63c. and upward, according to terms of sale. Commercial Lagos on the spot is held at 5¾c. Prime red on the spot is held at 5½@5¾c. Only small jobbing sales have been traded in. Palm kernel is quoted nominal and parcels for prompt shipment are held at 6⅛c.

OLIVE.—Fair jobbing sales of spot yellow and green oils at 60@62c. and 58@60c., according to size of order and terms of sale, have been made. New crop oil is being neglected owing to the duty to be paid on lots to be brought forward. Cables announcing that the combination of manufacturers of olive foots intend to raise prices, attracted widespread attention here. Orders forwarded at the recent quotations were refused by shippers abroad and it is intimated that buyers here are contemplating to use Sicily foots and grease, as they refuse to pay the prices asked for olive foots in Bari, which are equivalent to 5c. for green foots laid down here, which Tuscany foots would cost 5¼@5½c. Spot parcels are quoted at 5¼@5½c. for choice quality and for forward delivery 5c. is asked. Sales have been moderate and at the close buyers show a marked disinclination to operate.

MUSTARD.—The market remains steady under a seasonable demand for spot parcels, which are fetching 51c. and upward, according to quality and terms of sale.

RAPE.—We hear of no invoice transactions and business is being confined to small spot jobbing lots of burning grades at 62@63c., according to quantity and seller. Refined and blown are still quoted nominal at 55@56c., according to quantity and terms of sale.

Animal and Fish Oils.

COD.—According to reports the yield of Newfoundland oil for this season will be short. Round parcels of tank guaranteed pure oil for forward shipment at 38@40c., according to quality and duty paid delivered was obtainable, at which figure some lots changed hands. Jobbing spot parcels have been in fair request at 1@2c. per gallon above prices asked for shipment. Domestic is quiet and round parcels delivered are quoted nominal at 34@

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35c., while small spot jobbing lots are meeting with light sales at 1@2c. advance per gallon.

DEGRAS.—The position of the market here and abroad has not changed and prices for the lower grades continue irregular and are quoted nominal. Offerings of parcels from abroad for forward shipment at 2.35c., duty paid, delivered, are being made. Parcels of high grade quality are being firmly held and sales of spot parcels show a slight increase. Small lots are selling at ⅛@¼c. above the inside range of prices. Carload lots of high grade German are quoted at 2.45c. and upward, according to quality. French Moellen, 5@6½c., and French are quoted at 2.45c. and upward. English at 2.40c. and upward, according to quality. Domestic French Moellen is held at 4@4¾c., and American is quoted at 2.15@2.35c. for carload lots on the spot.

LARD OIL.—Trade in prime oil has not been especially brisk and sales of jobbing and carload lots reached a moderate volume. The jobbing demand has been fair. Trade in the off grades has been fairly good and additional sales of carload lots for prompt and fall delivery at 58c. and upward have been booked. Jobbing lots are bringing from 1@2c. per gallon advance. Manufacturers are holding carload lots of prime winter at 59c. and upward, and extra prime at 60c. and upward, while off prime is steady at 53c. and upward, and Extra No. 1 at 37c. and upward, according to quality and terms of sale. Spot jobbing parcels are held at 1c. per gallon higher.

MENHADEN.—Crude oil remains steady in tone, but in the absence of buyers the market presents a dull appearance. Fishing in the North and South continues to be poor and the season is drawing to a close. It is intimated that the decrease in the yield of oil for this season as estimated will be fully 30 per cent. under last season's yield. Spot jobbing lots of pressed oils met with a seasonable demand and sales on a basis of 27@28c. for brown strained have been effected. Carloads of light pressed are dull at about 23@24c. per gallon, delivered.

NEATSFOOT.—Additional quantities of cold test oil for export and to home consumers for prompt and later delivery at about current prices, have been made. The jobbing demand has been fairly good and dealers are obtaining 1@2c. per gallon above the prices for round parcels. Carload lots are quoted at 90c. and upward for 20 deg. and 80c. and upward for 30 deg. test. Prime is quoted at 49c. and upward, according to quality.

RED.—In response to a seasonable demand and a steady market for the raw material, prices for saponified remain unchanged. Manufacturers are offering carload lots at 4¼@4½c., according to brand and terms of sale, but some makes could have been purchased at 4¼c. Jobbing parcels sold at ¼@½c. above the quotations named for carload lots. Elaine is steady at 23c. and upwards, according to quantity and quality.

TALLOW OIL.—Prices remain about steady in tone in sympathy with steady quotations for the raw material and a seasonable demand for carload and jobbing parcels. Manufacturers are quoting carload lots of acidless at 57c., prime at 51c. and dark at 46c. The movement of jobbing parcels, into consumption sales at 1@2c. per gallon above the prices named for carload lots, amounted to a fairly good volume.

WHALE AND SPERM.—The New Bedford market presents a dull and featureless appearance, and according to recent reports, business there is practically at a standstill. The approximate stock of crude oil at New Bedford on October 9 amounted to 10,980 bbls. of sperm oil, and the stock of whale oil was 170 bbls. The demand in the local market for spot jobbing lots of pressed sperm oil has been moderate. First-hand parcels of natural sperm winter are quotably unchanged at 60c, and natural winter whale at 42c. Spot parcels are jobbing in small quantities at 1@2c. per gallon above the prices quoted for round lots.

Mineral Oils.

The expected advance in prices has not as yet been made, bue indications point to a change in the near future. The deliveries on outstanding contracts have been of a good volume. New business booked has been fair. Prices remain firm and manufacturers are naming former prices for the standard grades, less discounts, according to size of order and terms of sale.

Oil Cake, Meal, Etc.

Prices for linseed cake show increased strength, owing to a shortage spot supply, which is in the control of a few hands, and quotations are quoted entirely nominal at $29@29.50, with a strong upward tendency. Short sales of November-March deliveries at about $28 have been made. The demand from abroad for parcels for January shipment and beyond has been slow, and buyers are still holding aloof. For prompt delivery the demand has been good and sales of sizable lots at $28.50 and upward, seaboard delivery, have been made. Our telegram gives the cotton and meal situation more in detail.

Wax, Lard, Tallow, Etc.

PARAFFINE WAX.—The market for refined spot wax remains steady under a steady seasonable demand from home consumers. Quotations remain stationary and manufacturers are offering parcels of refined on the basis

(Continued on page 39.)

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NAVAL STORES.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 31.

Saturday Noon, Oct. 14, 1905.

SPIRITS OF TURPENTINE.—Developments in this market have been of a most interesting character, owing to the further boom and skyward movement of prices, which underwent successive sharp advances during the week. There appears to be no relief in sight in the immediate future, and no one cares to venture to predict how high prices will go. Southern markets are firm and prices at Savannah closed at 69¾c., the official quotation, which show a gain for the week of 2¼c. per gallon. The daily receipts at the latter port continued light, due to the scarcity of railroad cars and an insufficient help in the turpentine belt, and active buying cleaned up the stocks at Savannah. The local market followed the advance in the South and prices are quoted nominal for parcels of machine bbls., in yard, at 72@72½c. per gallon and ½c. less for oil bbls., showing an advance for the week of about 2@3c. per gallon. Trading in round lots continued to be slow and dullness pervades the market at the close. Only small jobbing spot parcels at prices ranging from 70@73c. changed hands. Buyers claim that prices are prohibitive and their attentions are being directed on wood spirits and substitutes, of which increased sales at 5@15c. per gallon under the quotations for pure spirits, are being made.

ROSIN.—Prices for grades shared in the advance for spirits of turpentine and quotations on all grades for the week have been advanced 10c. to 25c. per bbl. for supplies in yard, in sympathy with the sharp rise in values in the South. At Savannah receipts of common and medium rosins have been taken up promptly and there appears to be no cessation in the demand there. Trade in the local market has been restricted by the high prices which are quoted entirely nominal, and owing to occasional offerings at cut prices the market is somewhat irregular. Round lots are being neglected and only a small hand-to-mouth business in spot jobbing parcels has been done. The only first hand sale that could be traced was 500 bbls. of common and good strained, in yard, at $4. Holders are now asking $4.05. Spot stocks of the latter are light, while of the medium grades and pale sort supplies are sufficient to meet the present slow demand.

TAR AND PITCH.—The demand for tar shows no improvement and sales for the week have been light at 11@12c. per gallon, for oil bbls., of 50 gallons. We hear of no first hand sales of spot round lots, which are held at $5.50 for oil bbls., gauging 50 gallons. Small jobbing parcels are bringing $5.75@6, according to terms of sale. The demand for pitch shows no signs of abating and additional large sales of 800 bbls. and upward for prompt and forward delivery at higher prices, namely, $3 per bbl., on the spot have been made. Small lots for immediate delivery are held at $3.05@3.10 per bbl.

Following are the approximate receipts and deliveries at this port during the past week:—

NEW YORK STATISTICS.

	Spirits. bbls.	Rosin. bbls.	Tar. bbls.
Receipts	1,468	9,136	962
Deliveries	1,992	10,998	1,186
Stocks, Oct. 14	1,272	22,571	1,425

STOCKS IN YARDS.

	Spirits. bbls.	Rosin. bbls.	Tar. bbls.
New York, Oct. 14	1,272	22,571	1,425
Wilmington, Oct. 13	756	34,630	7,163
Savannah, Oct. 7	19,563	42,535	....

Charleston, S. C., Oct. 13, 1905.

Turpentine and rosin, nothing doing.

New Orleans, Oct. 13, 1905.

Rosin, receipts and exports none.

Savannah, Ga., Oct. 13, 1905.

Turpentine steady, 69¾c.; sales, 126; receipts, 596; shipments, 232. Rosin firm; sales, 1,887; receipts, 2,334; shipments, 1,200. Quote:—A, B, C, $3.95; D, $4.05; E, $4.30; F, $4.70; G, $4.75; H, $4.80; I, $4.85; K, $5; M, $5.10; N, $5.20; W. G., $5.50; W. W., $5.65.

Wilmington, Oct. 13, 1905.

Spirits turpentine, nothing doing; receipts, 69 casks. Rosin firm, $3.60; receipts, 214. Tar firm, $1.80; receipts, 134. Crude turpentine firm, $3.25, $4.75 and $4.75; receipts, 79.

Liverpool, Oct. 13, 1905.

Turpentine—Spirits strong, 51s. Rosin—Common firm, 10s.

London, Oct. 13, 1905.

Turpentine—Spirits, 51s. Rosin—American strained, 10s. 3d.; fine, 13s.

The comparative statement of naval stores at Savannah as posted on the Savannah Board of Trade, on Oct. 11, was as follows in bbls.:—

	Spirits.	Rosin.
Exports for season	74,208	124,975
Last year	49,151	84,400
Coastwise for season	51,363	259,902
Last year	63,897	267,810
Receipts since Sept. 1	141,256	384,961
Last year	125,689	367,207

The statistical position of spirits of turpentine in London, as compiled by James Watt & Son, was as follows in bbls.:—

	1905.	1904.	1903.	1902.
Stock Sept. 30	16,976a	....	16,942	21,601
Del'd this week	1,211b	....	1,488	1,485
Since Jan. 1	59,535	....	69,026	69,099
	s. d.	s. d.	s. d.	s. d.
Price Sept. 30	48 4½	38 9	43 3	36 6
Nov.-Dec.	48 7½	39 0	43 4½	36 9
Jan.-April	49 7½	39 9	44 3	37 9
Savannah	66¼c.	52¼c.	55c.	47⅝c.

(a) Includes 1,671 bbls. French.
(b) Includes 113 bbls. French.

Last week about 5,000 barrels arrived in cistern per Iris. This week about 5,000 barrels were exported in barrels per Iris.

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The advertisements which appear in this department are those of Manufacturers, and they all will send catalogue and full information upon application It is requested that all inquirers mention the fact that the name was taken from the MACHINERY DEPARTMENT of this publication. If any of our readers are contemplating the purchase of machinery we will be pleased to place them in direct communication with the manufacturers.

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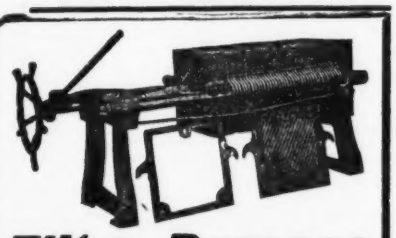

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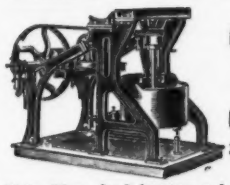

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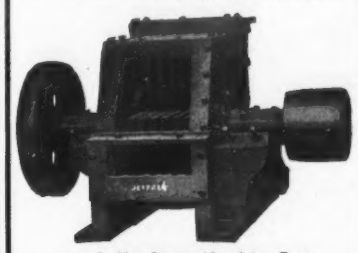

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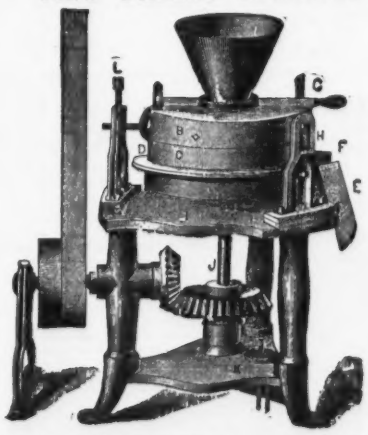

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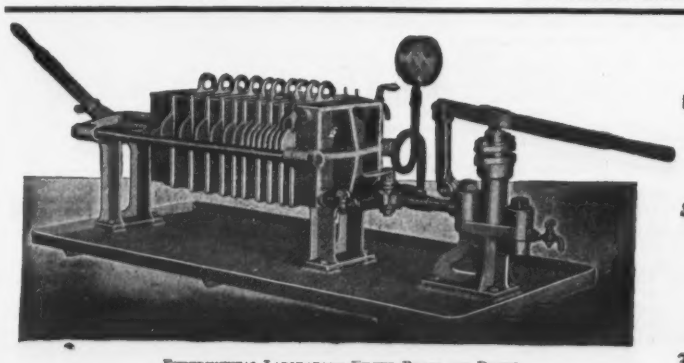

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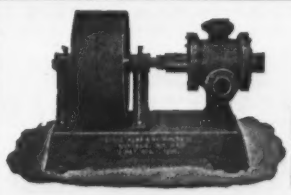

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Patents Granted

Under this heading we give a resume of the patents relating to the various trades represented by the Oil, Paint and Drug Reporter, issued by the United States Patent Office. A copy of the specifications of any of these patents may be obtained by addressing Commissioner of Patents, Washington, D. C. When ordering specifications it will be necessary to give the number of the patent.

Issued Oct. 3, 1905.

800,021.—NON-REFILLABLE BOTTLE. Henry Brewster, New York, N. Y. Filed Dec. 23, 1904.

A device for preventing bottles from being refilled, comprising a shell having two concentric tubes therein extending upward from the lower end of the shell, and two valves fitted one within the other and sliding respectively on the tubes, said valves having closed outer ends and perforations adjacent thereto, the shell having a shell extension at its lower end with an opening therein, an auxiliary valve commanding the opening in said extension, and a perforate disk coacting with the auxiliary valve.

800,844.—APPARATUS FOR FEEDING GLASS INTO MOLDS. Jonathan Haley, Akron, O. Filed Nov. 17, 1903.

The combination, with an inverted cup-shaped receptacle having an upwardly-projecting stem which forms a slide; means for actuating the said receptacle up and down and operatively connected with the aforesaid stem, and a frame provided with a slideway engaged by the aforesaid slide-forming stem; a bar depending and pivotally supported from the said frame at one side of the aforesaid stem; a lever fulcrumed to the lower end of the bar and having one arm thereof pivoted to the aforesaid stem, which lever has its other arm arranged to form a cut-off for closing the receptacle from below, and the arrangement of the parts being such that the cut-off is rendered operative or inoperative according as the receptable is hoisted or lowered.

800,735.—DIAMIDODIPHENYLAMIN SULFONIC ACID AND PROCESS OF MAKING SAME. Hugo Geldermann, Berlin, Germany. Filed Nov. 17, 1904.

The process of making new diamidodiphenylamin sulfonic acids from the corresponding dinitro compounds obtained by the action of para-nitro-chlorobenzene-ortho-sulfonic acid upon aromatic meta-diamins of the benzene series, which process consists in treating the nitro compounds with reducing agents in the presence of a weakly acidulated solution.

800,785.—SOAP AND PROCESS OF MAKING THE SAME. Heinrich Becker, Wiesdorf, Germany. Filed Jan. 24, 1903.

A method of manufacturing a soft soap which can be molded into and used in cakes, which consists in adding to one thousand parts of soft soap about four hundred to four hundred and fifty parts of sawdust and about six hundred and fifty parts of sand, first the one-half of the sawdust, then the sand and then the other half of the sawdust, stirring continuously and mixing well the whole, and finally adding about forty parts of a suitable liquid, for making the mass to lose its tough consistency and adhesiveness.

800,803.—PAINT OR OIL CAN. James B. Hall, Cleveland, O. Filed Dec. 10, 1904.

A can comprised of vertical and horizontal walls with an opening in the upper of said horizontal walls, a removable cover for said opening, a bridge piece extending across the front end of the can and protruding over the said opening, said bridge being provided with a spout opening, means provided oppositely of the can from said bridge piece to act conjointly therewith for holding a cover-securing bar in place, and a bail tiltably secured to the said can and provided with devices for engaging with implements carried on the can.

800,819.—OIL RECEPTACLE. Nikolaus Platt, Cologne, Germany. Filed Dec. 27, 1904.

An oil receptacle composed of a delivery tank, an inner rotatable perforated pipe within the same, an outer telescoping pipe having spirally arranged perforations, and a pump operatively connected to the bottom of the outer pipe and adapted to draw the oil through said pipe and out of the tank.

800,905.—PROCESS OF PRODUCING TERPENES AND RESINOUS SUBSTANCES. George P. Craighill and George A. Kerr, Lynchburg, Va. Filed Dec. 13, 1904.

The process consisting, first, in saturating wood with an alkaline solution, to fix the volatile acids and oils and liberate the terpenes, then passing steam through the wood for volatilising the terpenes and carrying them off, then, after adding a suitable quantity of water, drawing off the solution to recover the rosin, free from tarry and oily impurities.

800,913.—PROCESS OF NITRATING AROMATIC AMINS. Wilhelm Herzberg and Eduard Thon, Berlin, Germany. Filed Sept. 30, 1904.

The process for nitrating the arylsulfamids of an aromatic amin, which process consists in heating the said arylsulfamids with diluted nitric acid.

800,914.—YELLOW-RED AZO DYE. Wilhelm Herzberg, Berlin, Germany. Filed July 7, 1905.

As a new article of manufacture the monoazo dyestuffs. These dyestuffs being in the dry state blue-red to yellow-red crystalline powders, very difficultly soluble in water, dyeing on wool from an acid bath yellow-red to blue-red shades, and the lakes of which are insoluble in water and oil, being very brilliant powders of a blue-red to yellow-red color and very fast against the action of light, these dyestuffs yielding upon strong reduction with tin and hydrochloric acid the underlying or thoamido-sulfonic acid and 2.7-dioxy-1-amido-naphthalene besides para-toluene-sulfonic acid.

800,925.—PROCESS OF PURIFYING VISCIN. Willy Loebell, Klein-Zschachwitz, near Dresden, Germany. Filed Dec. 29, 1904.

The process consists in kneading the crude viscin with calcium carbonate and in the addition to the mixture of burnt gypsum, in subsequently extracting the viscin by means of benzin, and in distilling off the same.

800,985.—NON-REFILLABLE BOTTLE. James J. Collins, Springfield, Mass. Filed March 17, 1905.

The bottle neck having in its neck portion an internal annular groove, a cylindrical casing having a valve-seat opening in its bottom and having downwardly-extending spring prongs with outwardly-turned lugs to interlock in said annular groove, a guard-piece having its body of cylindrical form and of less diameter than the passage through the casing, provided with external upper and lower flanges, closely fitting in the casing, having a depending lug and constructed with separated upper and lower vertical passages, and with cross-passages at different heights, intersecting the vertical passages and communicating with the annular space between the guard-body and the internal wall of the casing and at points intermediate of said upper and lower flanges, means for connecting the said casing and guard, and a valve co-operating at said valve-seat opening and pivotally connected at one side thereof to the said depending lug of the guard.

800,997.—NON-REFILLABLE BOTTLE. Otto Emmerthal, Ansonia, Conn. Filed March 25, 1905.

The combination with a bottle having its neck formed with an integral fastening flange, a shoulder at the base thereof, a valve chamber, and a valve seat; of a ball valve located in the said chamber; and an independently formed neck piece having a flaring skirtlike fastening flange fitting over the flange aforesaid and making a joint with the said shoulder, and also having a sleeve entering the said chamber than which it is smaller in diameter and adapted at its lower end for the lateral passage of fluid into it from the said chamber, and the said flange and sleeve of the neck piece being separated by an annular recess conforming to and receiving the flange upon the neck of the bottle.

801,028.—PROCESS OF MAKING PLASTERS, ETC. Willy Loebell, Klein-Zschachwitz, near Dresden, Germany. Filed Dec. 29, 1904.

The process consisting in the addition to viscine of a non-volatile solvent and in subsequently subjecting the mixture to the application of heat and agitation.

801,072.—DEEP-BORING APPARATUS. Eduard, Frieb, Nordhausen, Germany. Filed May 3, 1905.

In deep-boring apparatus with percussion drill and core tube, the combination of the boring rod, the core tube rigidly secured thereto and provided with slots in its lower extremity or shoe, drill-driving apparatus within the bore hole, and a percussion drill connected with the driving apparatus and provided with cutters which enter the end slots in the core tube.

801,134.—PUMP-ROD EXTRACTOR. Samuel S. Button, Hodgeman, Kan. Filed May 4, 1905.

An extractor for use in tubular wells, consisting of the parallel bar holder, having an upper end tubular guide, a lower end ring and parallel guide bars connecting said tubular guide and end ring, a reciprocatory serrated wedge having an anvil shank, and guide plates secured thereto, a reciprocatory hammer head above the anvil shank, and a coupling stem secured to the hammer head and loosely engaging the tubular guide.

801,158.—PROCESS OF MAKING INSOLUBLE ALUMINUM ACETATE. Rudolf Reiss, Charlottenburg, and Otto Schmatolla, Berlin, Germany. Filed April 24, 1905.

The process consists in mixing a concentrated solution of acetate of aluminum with about one-third its quantity of concentrated acetic acid, boiling the mixture, stirring the mixture while it is boiling, separating the precipitate, and washing and drying it.

801,195.—COTTONSEED CLEANER. Daniel C. Lyle, Eastpoint, Ga. Filed May 24, 1905.

A pair of fan casings having eyes in their inner sides, a fan-carrying shaft extending through and supported in bearings upon the outer sides of said casings, flanges surrounding the eyes in the inner sides of the fan-casings, a tubular conductor supported by said flanges communicating with the fan-casings and having a slot, a flange surrounding said slot, a screen supported for rotation upon the tubular conductor, a shaker suspended beneath the screen and having a transverse slot disposed beneath the flange of the conductor, and means adjacent to the lower edge of said slot for obstructing the passage of material.

Hearings on Petroleum Rates.

Members of the Interstate Commerce Commission will go to Cleveland on October 23 to conduct hearings in two cases affecting the rate on petroleum. The cases are the Waverly Oil Company, of Pittsburgh, Pa., against the Pennsylvania, Delaware and Hudson, Boston and Albany and the New York, New Haven and Hartford railroad companies, and the Frederick G. Clark Company, of Cleveland, O., against the Lake Shore and Michigan Southern, New York Central and Hudson River, Lehigh Valley, Delaware and Hudson, Boston and Maine and the New York, New Haven and Hartford railroad companies.

(Special Correspondence to the Reporter.)

Chicago Fertilizer Market.

Chicago, Oct. 12, 1905.

The market continues to show improvement and the demand for contract stuff is enlarging. The Southern buyers, after remaining in a condition bordering on lethargy for some time, have at last begun to take hold, and the prospects are that there will be a good business for the next few weeks. There is still a protest on the part of the buyers against the prices which the sellers are asking, but the big packers are rather firm in their views, and there does not seem to be any likelihood that they will accept any recessions in prices. The Eastern contingent is doing considerable buying, though in a smaller way than the South. The chief demand is for blood and tankage. The stocks of the former are not very large and demand seems equal to the supply and the new output.

DRIED BLOOD.—The offerings have been liberal, but the demand has been of sufficient volume to absorb the supplies without much difficulty. The South is the principal customer, and contracts are being made for late fall delivery, the demand for the spot stuff having eased off somewhat. Prices show little change, the prevailing range being $2.40@2.42½.

HOOF MEAL.—The demand and the supply alike are light. There is practically no business being done save in a very small way. For the most part, the price is merely nominal at $2.40.

CONCENTRATED TANKAGE. — Demand small. The offerings are rather more than the trade can use, though there is no change in the price. Most of the sellers are asking $2.15.

TANKAGE.—It is in this class of fertilizer that there is the most active demand at the present time. The Southern trade has picked up very noticeably within the last week, though there was an excellent demand from that section of the country last week. The future market is opening up in a satisfactory way, but there is some cessation of the inquiry for spot stuff. The buyers are trying hard to secure futures at the prices at which the spot fertilizer is quoted, but the packers are too firm in their views. The business this week was not so heavy as that for the corresponding week last year, but it approached nearer to it than any week thus far this fall. The range of prices as they are quoted by the packers follows:—12 and 12, $2.20@2.22½ and 10c.; 10 and 10, $2.15 and 10c.; 9 and 20, $2.07½ and 10c.; 11 and 15, $2.20 and 10c.; 7 and 30, $17.25 ground, $16.25 unground.

BONE MEAL.—The demand continues to be good, and the offerings are readily absorbed, so that it is probable that a bigger supply could be used if the prices were made right to the buyer. As it is there is little haggling over values. The scarcity of raw bone is still marked, though steamed is more plentiful. The sellers generally are asking $18 per ton for the latter.

AZOTINE.—The trade continues as it was last week—practically without any life. The price is still nominally steady at $2.30.

CONCENTRATED SHEEP MANURE.—The demand is good, and all that can be made is being taken at the prevailing prices. This is a fertilizer which is usually sold ahead for some months, and the present time is no exception. The demand is chiefly from nearby points, the manure being probably the easiest selling of all fertilizers at this time. The price ranges $7@7.25, Chicago.

(From the Journal of American Chemical Society.)

On Amorphous Sulphur.

BY ALEXANDER SMITH AND WILLIS B. HOLMES.

Some Facts about Amorphous Sulphur Previously Established with More or Less Definiteness.—Insoluble or amorphous sulphur seems to have been first isolated, examined and described with some care by Deville. The work of previous observers justifies the following conclusions in regard to this modification of sulphur:—It is (1) formed in increasing amounts as the temperature rises, and diminishes in quantity as the temperature once more falls. It is thus (2) generated by an endothermal action from soluble sulphur, and (3) at ordinary temperatures is, therefore, less stable than crystalline sulphur.

The following are briefly the facts which support these conclusions:—

(1) Amorphous sulphur can be obtained only when the melted sulphur is chilled rapidly. When heated sulphur is allowed to cool slowly little or no insoluble sulphur is ever found. This fact was shown particularly clearly by a few experiments made by Kuster and is further supported by many observations described in the present paper.

(2) The higher the temperature at which the sulphur has been held before being quenched the larger, in general, is the proportion of insoluble sulphur obtained. Thus Moitessier, in connection with his measurements of the coefficient of expansion of melted sulphur, believing that the variation in the value of the coefficient with change in temperature was due to changes in the proportion of insoluble sulphur present, made a series of estimations of the insoluble sulphur obtainable by quenching from various temperatures. His percentages of insoluble sulphur were as follows:—

130 deg., 0; 143 deg., 0; 148.6 deg., 2.54; 159.9 deg., 7.03; 167.4 deg., 14.77; 179.4 deg., 22.60; 213.5 deg., 27.09; 249.9 deg., 26.31; 284.9 deg., 29.31; 440 deg., 30.27.

These data are not quoted in chemical works of reference, and the results of Berthelot's experiments are more familiar to chemists. Berthelot gives the following table:—

Temperature.	Per cent. insoluble sulphur.
130-140 deg.	None.
155 deg.	Trace.
163 deg.	Very little.
170 deg.	25
185 deg.	29
205 deg.	29
230 deg.	30

These figures are misleading because they give the false impression that there is almost no insoluble sulphur obtainable below 170 deg., and constant, large amounts about 170 deg. The work of the present paper (section II.) confirms Moitessier's measurements.

(3) The higher the temperature to which the sulphur has been heated the lower, in general, is the temperature at which it freezes. Schaum examined this phenomenon. The work was not done with sufficient thoroughness, however, to justify his inference, viz., that the freezing-point was depressed by dissolved amorphous sulphur by amounts proportional to the quantities of the latter. He observed the freezing-points, simply, and did not simultaneously estimate the insoluble sulphur present. The relation between the temperature of freezing and the amount of dissolved amorphous sulphur was later established conclusively by the quantitative measurements of Smith and Holmes, and shown to be expressed by Raoult's law. In the light of this relation, now determined, Schaum's observations lead to the conclusion that the higher the temperature to which sulphur has been heated the larger the proportion of insoluble sulpur it contains.

One other fact is, or rather was, generally accepted. It is evidently the opinion of many writers that the increase in the viscosity of melted sulphur, which is so suddenly noticeable near 170 deg., is coincident with the production of the insoluble form and is due to the presence of the latter. Berthelot even states that larger yields of insoluble sulphur are obtainable by chilling from the temperature of maximum viscosity than from any other temperatures, either higher or lower. We have always found smaller amounts below this temperature and larger ones above it, however, and Kastle and Kelley have likewise failed to confirm Berthelot's observation. After we had found that melted sulphur which had been treated with a little gaseous ammonia gave no insoluble sulphur when chilled, but still exhibited the usual increasing viscosity when carried above 170 deg. and resumption of the mobile condition when cooled, it became doubtful for a time whether there was any connection at all between viscosity and the content of insoluble sulphur. It was only after further investigation, described in the preceding and the present papers, that the existence of the connection was re-established.

The Theory of the Relation of Soluble to Insoluble Sulphur Based on These Facts.—The progressive increase with rising temperature in the proportions of insoluble sulphur, together with the fact demonstrated by the work on the freezing-point that amorphous sulphur can exist dissolved in a foreign body in soluble sulphur, determine one fact about the relation of the two forms. Evidently insoluble sulphur is produced from soluble sulphur by a reversible chemical action and is present, in definite proportions determined by the temperature, in chemical equilibrium with the latter:—

S (liquid, soluble)=S (liquid, amorphous).

This view seems to be held by Kuster, Schaum and Duhem, the last mentioned in a wholly theoretical paper.

Berthelot is the chief exponent of a different theory. He found almost no insoluble sulphur below 170 deg. Above 170 deg. he isolated from the mass when it had been allowed to harden 30 per cent. of insoluble sulphur. He believed that the values at temperatures above 170 deg. fell short of 100 per cent., only because the cooling had not been sufficiently rapid and endeavored to obtain larger yields by using (1) a fine stream or succession of droplets of boiling sulphur, (2) cooling in ether and other liquids, (3) immediate extraction of the plastic mass. Adding these refinements in succession he obtained with the first alone 61 per cent., with the first and second 71 per cent., with all three 85 per cent. The material used in the last experiment gave 85 per cent. only when extracted while it was plastic. Next day it gave 47 per cent. and two days later 3 per cent. On these results he based the conclusion that the change from soluble to insoluble sulphur takes place per saltum near to 171 deg.

The work of Moitessier and ourselves shows that Berthelot was undoubtedly seriously in error in finding no insoluble sulphur below 170 deg. On the other hand, it may well be that 100 per cent. of insoluble sulphur is present not far above 170 deg., but the discussion in the next paragraph will show that Berthelot's method is incapable of demonstrating either that it is or is not so present.

Plastic and Hardened Amorphous Sulphur and the Reasons for Measuring the Proportion of the Latter Only.—When boiling sulphur is rapidly chilled a transparent, yellow, homogeneous and perfectly plastic material is formed. Let this be assumed to be a solution of soluble and insoluble sulphur in certain proportions. It is evidently impossible to determine what these proportions are, for the properties of soluble and of insoluble sulphur in the plastic condition, separately, cannot be determined. The former cannot be obtained in plastic condition at all, and we have no means of knowing whether we ever have the latter alone or not.

After the plastic mass has been allowed to become opaque and hard the proportion of insoluble sulphur contained in it is easily determined by extraction. Once this stage has been reached, the further transformation of insoluble into soluble sulphur proceeds very slowly indeed and there is little reduction in the proportion of the former at the ordinary temperature, even when the sample is kept for months. The crude method of extracting the plastic threads or beads at once with carbon disulphide, as used by Berthelot, is open to three objections:—(1) Amorphous sulphur, both in the soft and in the hardened conditions, being the less stable form at ordinary temperatures, must be ultimately more soluble than crystalline sulphur.* The plastic form must also be more rapidly dissolved than is the hardened one. As a matter of fact, in the plastic state sulphur does dissolve pretty freely in carbon disulphide and may be largely recovered by evaporation. (2) The plastic sulphur, when extracted, is found to form an emulsion with the solvent and to be carried in minute drops rapidly through the pores of the thimble. (3) If there is any soluble sulphur present at all it must be covered up by the clinging mass of plastic material and largely escape solution. Berthelot's plan for determining amorphous sulphur in the soft condition is thus wholly futile.

On the other hand, if the transparent, plastic mass is left until it becomes hard, the change is bound to take place in two directions simultaneously. Part of the material, of course, does give quasi-solid, amorphous sulphur. But an undeterminable part must also pass into the soluble crystalline variety. The extraction of the hardened mass does give fairly accurate information in regard to the proportions of the two kinds finally formed, but it gives only a minimum value for the quantity of insoluble sulphur present before hardening began.†

With the exception of a few trials, therefore, all our measurements were made with the final product of hardening and do not pretend to state how much insoluble sulphur was present, either before chilling or immediately afterwards. They are used only for the purpose of comparing the effects of variations in the modes of treatment before chilling and the influences of various foreign bodies. Thus from common sulphur, chilled in ice from 448 deg., after hardening, we obtained 34 per cent. and no more, of insoluble sulphur. On the other hand, when a few bubbles of ammonia were passed before chilling we obtained from the hardened mass by the same process no insoluble sulphur at all. Again, by distilling the sulphur and quenching the burning stream in ice we obtained, after hardening, 51 per cent. From this it may be

* Doubtless the hardened amorphous sulphur is more soluble, but takes longer than the crystalline variety to reach a state of equilibrium with the solution. Some writers describe plastic sulphur as a distinct, soluble variety of amorphous sulphur. In the plastic condition amorphous sulphur undoubtedly dissolves more rapidly but there is nothing to show that it finally dissolves to a greater extent. The "soluble amorphous sulphur" formed by precipitation will be shown by Mr. R. H. Brownlee in a forthcoming paper to be wholly finely divided, crystalline, rhombic sulphur.

† Kastle and Kelley studied the shrinkage which occurs when plastic sulphur hardens. They seem to have assumed that this affords a means of measuring the rate of change of plastic sulphur into crystalline sulphur. Thus in one experiment they assume in their method of calculation, that the shrinkage represented a complete change from 100 per cent. plastic amorphous sulphur to 100 per cent. solid crystalline sulphur, taking place under water at the ordinary temperature within twenty-four hours. Judging from the results of our experiments, made in a similar way, at least 30 per cent. of insoluble sulphur must still have been present. The change in volume from plastic sulphur with sp. gr. 1.95 to hardened amorphous sulphur with sp. gr. 2.05, however, is practically the same as to rhombic sulphur of sp. gr. 2.06-2.07. Professor Kastle, in a private letter, calls attention to the conviction, expressed clearly in the original paper, that plastic sulphur is composed of several molecularly different kinds of sulphur, all of which are amorphous. He believes that one or more of these hardens to insoluble amorphous sulphur, while the others give only crystalline sulphur. In his experiments he was endeavoring to trace the history of the latter portion only, on the assumption that the change of volume was due exclusively to the crystallization of this part of the material. The authors do not feel that anything at present known compels us to believe that plastic sulphur contains more than one kind of amorphous sulphur. Nor do they feel that it is safe to assume the absence of any change in volume during even the mere hardening of the supposed uncrystallizable constituent.

inferred that the circumstances attending distillation left the plastic sulphur in such a condition that, during the process of hardening, a smaller proportion of it reverted to the crystalline state. Still again, when 2 per cent. of iodine was added before chilling, the hardened product contained 63 per cent. of insoluble sulphur, the largest yield of this form of sulphur which we were able to secure when, after the cycle of changes attending chilling and hardening, the system had reached a stationary condition. As a rule, in all cases, for the sake of comparison, the product, after chilling, was treated in exactly the same way.

Insoluble Sulphur by Precipitation.—It was only after the experiments were made in an entirely different way that specimens containing 100 per cent. of insolubie sulphur were obtained. This was by precipitating sulphur from calcium pentasulphide by means of highly concentrated hydrochloric acid. The pentasulphide was added to the acid in order to secure the constant presence of a great excess of the latter from the start. These experiments were done in collaboration with Mr. R. H. Brownlee, and will form the subject of another paper, which has not yet been completed. They are mentioned here to show that when plastic sulphur—for when first precipitated the sulphur is in fluid droplets—is sufficiently finely divided and is in contact with an active acid, it hardens completely to the amorphous state and none of it assumes the soluble form. A similar fineness of subdivision is evidently impossible of attainment in quenching the boiling liquid. When it had thus been ascertained definitely that the conditions necessary for securing 100 per cent. of insoluble sulphur could not be realized by quenching, the effort further to increase the yield by this method was given up.

The Point of View in Which the Results of the Present Experiments Are To Be Interpreted.—The discussion of the various hypotheses which may be used to explain the results of this work on the super-cooling of melted sulphur, so far as such discussion can serve any useful purpose, is given later. Since, however, the results themselves cannot be described clearly excepting in terms of some theory, the one finally adopted is used when necessary throughout the paper. It is based upon consideration of all the results, in the light of the facts given in the preceding paper (II) of the series. Briefly, the explanation of the behavior of sulphur is as follows:—

There are two liquid states of sulphur which are partially, but only partially, miscible. These are (1) the pale-yellow, mobile liquid which is the normal form from the melting-point of rhombic sulphur up to 160 deg., and (2) the brown, viscous liquid which is stable above 160 deg. These we have styled Sy and Su respectively. The latter is present in small amount so soon as the sulphur melts, and is formed in increasing proportions as the temperature rises. The proportion is determined by a reversible action Sy=Su. At 160 deg. the Sy has become a saturated solution of Su, the proportion of the latter at this temperature probably not exceeding 12 per cent. When the temperature is raised beyond this point supersaturation with Su ensues and a new phase consisting of Su, in which is dissolved a certain proportion of Sy, arises. According to the phase rule, with one substance, three phases (two liquids and vapor) can coexist only at a definite temperature—the transition point (160 deg.). Hence above 160 deg. only Su, containing amounts of dissolved Sy which become smaller as the temparature rises, is stable. Rapid heating and the presence or absence of certain foreign substances favor the postponement of the transition of Sy to Su and lead to the familiar variations in the temperature at which the sudden viscosity first appears. Conversely, rapid cooling from temperatures above 160 deg., particularly when certain foreign bodies are present, favors the postponement of the transition of Su to Sy and hinders or prevents almost entirely the occurrence of the change on which an extensive transformation into Sy depends. When conditions are favorable, a large proportion of the Su may survive to reach the ordinary temperature. The chilled product is then a more or less sticky mass which in time partly reverts to soluble sulphur and partly assumes a quasisolid, difficultly soluble form. The latter substance is that commonly known as amorphous sulphur. Like all amorphous substances, it is a supercooled state of a liquid, namely Su. The part which reaches the conditions Sy gives brittle, crystalline, soluble sulphur when it solidifies.

I. EXPERIMENTAL METHODS.

The sulphur used was purified by recrystallization from pure carbon disulphide in such a way that a fine crystal-meal was obtained. This was pressed free from the mother-liquid, dried at a gentle heat, and preserved in a loosely corked bottle. Specimens from the same lot were used in each series of similar experiments. Except when otherwise stated 25 grams formed the charge of each tube. The heating to some definite temperature was conducted in open tubes. A large glycerol bath was used for lower temperatures, a paraffin bath for higher ones, diphenylamine vapor at 310 deg. and sulphur vapor at 448 deg. The supercooling was effected by rapidly pouring the sulphur, or by breaking the tube into powdered ice. Other methods had been found to give yields which were no larger, and were often smaller and always less regular. The experiments on freezing-points had shown that once the temperature had fallen to about 115 deg. the reversion of the dissolved amorphous sulphur to soluble sulphur was comparatively slow. Thus, since the cooling sulphur was not allowed to form large masses, only a few seconds elapsed before the lowering in temperature requisite to arrest reversion had been attained. When the proportion of amorphous sulphur was small, the product became hard in a few hours and the amount of insoluble sulphur found by extraction closely corresponded to the amount which had actually been present before the chilling began. The freezing-point experiments, which involved amounts from zero up to 5.5 per cent., show that the results were literally quantitative within that range. When, on the other hand, a high temperature had been used, the supercooled mass was often of the familiar elastic description. In such cases the hardening occupied two days or more and, although 30-63 per cent. of insoluble sulphur was contained in the final product, the total amount of Su in the material at the plastic stage, not to speak of the liquid before the cooling began, must have been much greater (see preceding paragraph). This uncertainty, and the further fact that a longer time must have elapsed before 115 deg. was reached and the danger of reversion to the soluble form was past, makes caution necessary in the interpretation of the data in regard to sulphur supercooled from very high temperatures. These data are used, therefore, only for comparing the effect of variables other than temperature itself.

Except where otherwise stated, the supercooled mass, after it had become hard, was pulverized and passed through a fine sieve, in order to secure uniform physical condition in the samples used for extraction. The solvent employed was carbon disulphide. Comparable results were obtained by using equal weights (10 grams) in the same state of subdivision and removing the soluble sulphur each time by the same number of fillings (five) of a Soxhlet extractor. The extractions were made in duplicate in each case. Correction for the quantity of insoluble sulphur dissolved at the same time was made as described in the previous paper, where also the experiments testing the accuracy of this method of estimating amorphous sulphur are described.

II. RESULTS OF SUPERCOOLING ORDINARY SULPHUR, THAT IS, SULPHUR WHICH HAS ACQUIRED TRACES OF SULPHUR DIOXIDE, OR, SULPHURIC ACID, BY EXPOSURE TO THE AIR.

Each of the results given below was obtained by taking the average of three or four experiments. Preliminary experiments showed that three hours were required for the attainment of the maximum proportion of insoluble sulphur at the lower temperatures. The individual observations varied in a most disturbing manner, the highest showing sometimes 0.5 per cent. of insoluble sulphur more than the lowest. The results at 448 deg. showed exceptional irregularity, the individual percentages being 31.8, 36.6, 36.1, 31.8. This variation could not be removed by stirring or any other expedient so long as common sulphur was used alone. Trial

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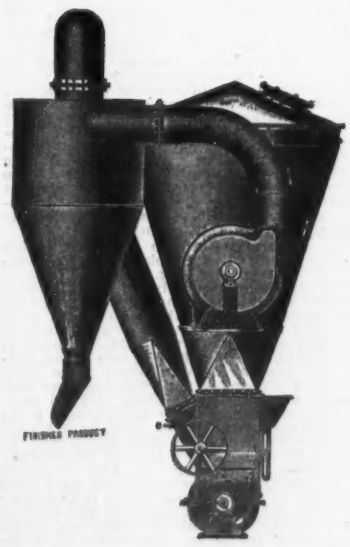

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showed that two tubefuls of sulphur taken from the same lot, heated side by side for the same length of time and cooled simultaneously in the same manner, sometimes gave percentages of amorphous sulphur 6.5 apart. The same experimental method was found to give concordant results in other series, e. g., that in which iodine was present (section IV). The results, which are represented graphically in Fig. 1 (section IV), were as follows:—

Temperature.	130 deg.	140 deg.	150 deg.	160 deg.
Per cent. insoluble sulphur.	4.2	5.6	6.7	11.0
Temperature.	170 deg.	180 deg.	200 deg.	220 deg.
Per cent. insoluble sulphur.	18.7	22.5.	27.0	29.4
Temperature.	240 deg.	310 deg.	448 deg.	
Per cent. insoluble sulphur....	33.0	32.6	34.1	

In the above experiments the sulphur entered the bath cold. It was thought that the equilibrium values could be better defined by making another series of experiments in which the sulphur should first be heated for a considerable length of time at a temperature 20 deg. above that of the experiment, so as to create an excess of amorphous sulphur, and be then placed in the bath. At 150 deg. the results were in close correspondence, viz., with cold sulphur 6.7 per cent., with sulphur which had been two hours at 160 deg. previous to being placed in the bath at 150 deg., 6.8 per cent. At 170 deg., however, the sulphur which had been two hours at 200 deg. gave 17.4 per cent., while the result with cold sulphur was 18.7. At other temperatures similar discrepancies were encountered.

It will be seen that the above results, taken as a whole, give nothing more than a general idea of the relative proportions of amorphous sulphur obtainable from common sulphur by the use of different temperatures. The values up to 160 deg. also doubtless give a fairly accurate notion of the proportions of Su present in solution in the Sy up to the transition point at which saturation with Su occurs. They dispose at once of Berthelot's belief that practically no amorphous sulphur exists below 170 deg. They also render very improbable his conclusion that the amounts of it are constant above 170 deg. and that throughout the lower part of the region 170-448 deg. it constitutes the whole of the material. The divergence from Moitessier's results given in the introduction is doubtless due in part to the sensitiveness of the behavior of sulphur to the influence of traces of impurities, the nature and amount of which must vary in different samples, and in part to the fact that he used very small samples for extraction.

III. AMORPHOUS SULPHUR NOT OBTAINABLE BY SUPERCOOLING WHEN THE SULPHUR DIOXIDE OR SULPHURIC ACID IS REMOVED.

In the earliest experiments made to determine the time required for the production of the maximum yield of insoluble sulphur, although the results were by no means regular, it was observed, especially at the higher temperatures, that there was a distinct falling off from the maximum amounts in the tubes which had been longest heated. It was thought that some action of the air was accountable for this, and the point was reserved for later investigation.

Later it was noticed that freshly recrystallized lots of sulphur gave abnormally small yields, and their use was therefore avoided in the experiments described so far.

When the former idea was tested by passing air through sulphur heated at 448 deg., the yield of insoluble sulphur was found to be as large as usual, no matter how long the stream of air continued. Carbon dioxide, on the other hand, when used simply to displace the air in the tube, reduced the yield below 5 per cent. Its effect was the same when it was allowed to pass through the melted sulphur. Taking all these facts together, it seemed probable therefore that sulphur dioxide or sulphuric acid formed by slow oxidation was in some way responsible for the whole phenomenon of the formation of the amorphous sulphur, and that the removal of the impurity by the use of carbon dioxide, recrystallization, or otherwise, inhibited the production of insoluble sulphur. The following paragraphs give a selection of the experiments which confirmed and enlarged this conclusion.

Sulphuric Acid Present in Sulphur.—When sulphur which has been exposed to the air is washed with water, a small amount of sulphuric acid is easily detected in the washings. This fact is familiar to all chemists, and was confirmed by trial in the case of the sulphur employed in these experiments. The quantity varies from 0.0025 per cent. upwards to about 0.02 per cent. When sulphur is heated bubbles of gas appear in it and, according to Frankenheim, are reabsorbed when it cools. Malus holds this gas to be sulphur dioxide.

To ascertain the outside limit of the amount of sulphur dioxide contained in amorphous sulphur, a rough quantitative experiment was made. Pure amorphous sulphur was used. Carefully dried carbon dioxide, which was led over heated copper to remove free oxygen, was passed through the sulphur at 150-150 deg. The issuing gas entered a Liebig bulb apparatus containing bromine water, to absorb any reducing gas. Plugs of glass wool were inserted to retain any particles of free sulphur which might be transported with the gas. The sulphuric acid found in the Liebig apparatus was determined. The amount of amorphous sulphur taken was 62.5 grams. This gave 0.07 gram of sulphur dioxide. As some oxidaton of the sulphur by the carbon dioxide undoubtedly occurred, and some sulphur vapor was doubtless carried over, even this small amount is in excess of the amount of sulphur dioxide originally in the amorphous sulphur.

Products of Supercooling when the Sulphur Dioxide Is Removed by Prolonged Heating, Heating in Vacuo, Recrystallization and Washing.—The per cent. of amorphous sulphur after various modes of treatment was as follows:—

	Heated 8 hours.	Heated 1½ hours.
At 448 deg., open tube.....	2.6	34.0
At 220 deg., open tube.....	25.6	29.5
At 220 deg., 12-15 mm. pressure	11.9	...
At 200 deg., open tube.....	25.8	27.0
At 180 deg., open tube.....	20.0	22.5

At temperatures below 180 deg., with the open tube, the effect of prolonged heating, if there was any, was too small to be distinguished with certainty.

Sulphur, recrystallized in a fine meal from carbon disulphide, heated for two hours in a steam bath to free it from the solvent, with no precautions to exclude the air, and then immediately heated for one and a half hours at 448 deg. in an open tube, gave only 10.1 per cent. When precautions were taken to exclude the air, the amount of insoluble sulphur was below 1 per cent.

Recrystallized sulphur which had been exposed to the air for weeks was very finely powdered and washed repeatedly with boiled water to remove the product of oxidation. It was then washed with alcohol and ether, and placed in a steam bath for thirty minutes, the air having access to it during the whole proceedings. After being heated for one and a half hours at 448 deg. in an open tube it gave only 11.3 per cent. of insoluble sulphur.

In all these cases the sulphur was brown and viscous above 160 deg. and yellow and mobile below it, as usual.

The Work of Malus on the Viscosity of Sulphur.—In a paper published in December, 1901, while the present work was in progress, Malus describes a systematic and extensive series of experiments, and shows that the production of viscous sulphur by cooling the heated element rapidly to 100 deg. or to 15 deg. is determined by the presence of sulphur dioxide, and that in the absence of the dioxide the cooled product is mobile at 100 deg. and brittle when solid. The points in his paper with which we are at present concerned are as follows:—

"A narrow tube full of sulphur plunged suddenly into a bath at 100 deg., after being heated for ten to fifteen minutes at 357 deg., has these properties:—(1) reddish yellow tinge, (2) surface highly invaginated, (3) great viscosity, (4) rate of crystallization when inoculated with a monoclinic crystal, two minutes for first centimeter (5) sudden cooling to 15 deg. gives a soft solid. This liquid he calls S_1. Reheating at any stage gives S_1 again."

"Sulphur plunged suddenly into a bath at 100 deg., after being three hours at 357 deg., has these properties:—(1) pale yellow color, (2) no invagination, (3) mobility, all but a superficial layer 7-8 mm. deep which is viscous (after ten hours at 357 deg. often completely mobile even at surface), (4) rate of crystallization to monoclinic sulphur five and a quarter seconds for first centimeter, (5) suddenly cooled to 15 deg., either directly from 357 deg. or after being intermediately at 100 deg., the product is brittle. This liquid he calls S_2. Reheating at any stage gives S_2 again, and not S_1."

"Sulphur cooled slowly to 100 deg., after being ten to fifteen minutes at 357 deg., resembles S_2 exceptinp that when reheated it gives S_1. He calls this S_3."

"Using 310 deg. (instead of 357 deg.) even with more than twelve hours' heating, the change into S_2 is not always complete."

"At 185 deg., even 105 hours do not quite suffice to bring the speed of crystallization up to that of S_2."

"At 357 deg. a stream of carbon dioxide for ten to twenty-two minutes, or even the mere insertion of glass rods for five minutes, cause complete transformation into S_2. This effect he explains by supposing that these agents assist in the liberation of the bubbles of gas whose retention gives viscous sulphur (S_1). At 310 deg., with glass rods, forty minutes are required to give S_2. At 185 deg., 160 hours are needed. Sulphur dioxide does not produce S_2. On the contrary, when it was passed into S_2, S_1 is formed."

While amorphous or insoluble sulphur is no where mentioned in the paper, the interpretation of his results can easily be made out if we make an assumption, for which, however, no basis is to be found in his paper. This assumption is that viscosity and the presence of amorphous sulphur are related to one another as effect and cause. The final result of our own work shows that this assumption is justifiable. The appearance of his paper while our work was in progress in fact brought welcome confirmation of observations which were in some cases difficult to accept.

Since the presence of our Su undoubtedly causes the viscidity of sulphur rapidly cooled to 100 deg. or to 15 deg., it may now be inferred from Malus' paper that heating at 357 deg. for three hours destroys the capacity of the Su to be supercooled. At 310 deg. twelve hours, and at 185 deg. 105 hours, are barely sufficient for the same purpose. In each case it is the gradual escape of sulphur dioxide at the surface which permits the change to take place. A stream of carbon dioxide or the presence of glass rods accomplishes the same result by helping the liberation of the gas. Unless the sulphur dioxide is reintroduced the sulphur remains incapable of giving a viscous product containing amorphous sulphur.

Products of Supercooling when Sulphur Dioxide Is Removed or Destroyed by Certain Gases and by Alkalies.—As we have seen, the normal amount of amorphous sulphur found after heating at 448 deg. for one and a half hours is 34 per cent. In the following experiments, except were otherwise stated, the same temperature and time were used.

Carbon Dioxide.—Carbon dioxide, washed with water, was passed down to, but not under, the surface of the sulphur. The yield was only 4.5 per cent. When the gas actually passed through the sulphur the yield was the same. A very slight dark deposit was found inside the delivery tube near the exit in all experiments with carbon dioxide. It was probably carbon, produced by a slight reduction by the hot sulphur. Thus, with this gas the presence of sulphur dioxide is not completely excluded.

Nitrogen.—Dry nitrogen gas, passed over heated cupric oxide, and traversing the sulphur, gave only 4.7 per cent.

Ammonia.—When dry ammonia was passed through sulphur at 448 deg. for one hour and a half no amorphous sulphur whatever was found in the product. The action here is doubtless in part chemical, since ammonia interacts with sulphur dioxide. The product had a slight odor of ammonium sulphide.

Hydrogen Sulphide.—Dry hydrogen sulphide passed in the same way gave 0.85 per cent. Here again interaction must occur.

Sulphur Vapor.—Since it appeared that the action of these gases was in large part mechanical, the effect of sulphur vapor itself was tried. Sulphur was boiled vigorously in an open tube for two hours, and, on extraction, was found to contain only 13.2 per cent. of insoluble sulphur. Sulphur vapor was therefore less effective than carbon dioxide or nitrogen.

Alkalies.—A little powdered potassium hydroxide placed in the sulphur at 448 deg. prevented entirely the formation of insoluble sulphur. It is known that sulphur containing the amorphous form, when allowed to stand in an alkaline solution, loses a large proportion of the latter. We found that finely powdered sulphur originally containing 54.7 per cent. of insoluble sulphur, after being allowed to stand in a 5 per cent. solution of sodium carbonate for several days, contained only 8.1 per cent.

Temperatures Below 448 Deg.—At temperatures below 448 deg. the effect of gases passing for one and a half hours was observed.

The following are a few of the results:—

Temp.	Gas.	Per cent. insol. sulphur—Found.	Normal amt. at same temp.
310°	carbon dioxide	6.2	32.5
240°	carbon dioxide	29.1	33.0
160°	carbon dioxide	11.8	11.0
140°	ammonia	0.0	5.5

It appears that purely mechanical means have no perceptible effect below 180 deg., but that substances capable of interacting chemically can act at any temperature to destroy the possibility of obtaining insoluble sulphur.

Air at 448 Deg.—Undried air passed through sulphur for two hours gave 34.5 per cent. of insoluble sulphur. Dried air passed for eight and a half hours gave 30.8 per cent. These results are not different from those without air, similar variations having been found when no air was used, but show that the disappearance of insoluble sulphur by long heating does not occur when air is employed.

Restoration of the Capacity to Give Insoluble Sulphur by Exposure to the Air and by Use of Sulphur Dioxide.—The capacity once more to yield insoluble sulphur is not recovered by solidification, but it returns gradually during prolonged exposure in a finely powdered condition to the air. One specimen, after treatment with carbon dioxide at 448 deg., was allowed to solidify and next day was heated for two hours at 160 deg. It gave only 3.2 per cent. (instead of 11). Another, after an hour had been allowed for solidification and loss of all carbon dioxide by diffusion, gave, when once more heated at 448 deg., only 2.2 per cent. Still another, after solidification, allowed to remain in the tube exposed to the air (but in a compact mass) for twelve days, gave, when heated at 448 deg., 12.1 per cent. (instead of 34).

A specimen treated with carbon dioxide, and, after solidification, recrystallized from carbon disulphide and quickly freed from the solvent in a steam-bath, gave, when once more heated at 448 deg., only 1 per cent.

In all cases leading sulphur dioxide through the specimen at 448 deg. for a few minutes completely restored the normal yield of insoluble sulphur. Leading air through the mass for an hour and a half produced the same effect. It thus appeared as if the amorphous body could be produced and destroyed any number of times by the alternate use of suitable substances. The following are a few of the results at 448 deg.:—

	Per cent.
1. Dry carbon dioxide	4.5
2. Dry carbon dioxide, then dry air.....	31.2
3. Dry carbon dioxide, then dry sulphur dioxide	36.5
4. Dry carbon dioxide, then recrystallization	1.0
5. Dry carbon dioxide, then recrystallization, then dry air.....	32.9
6. Dry carbon dioxide, then dry air, then carbon dioxide	4.09

Best Method of Preparing Sulphur Which Cannot be Supercooled and Yields no Insoluble Sulphur.—It may be inferred from the above experiments that perfectly pure sulphur would give no amorphous sulphur when heated for an hour and a half at 448 deg. The best way to prepare sulphur closely approaching this ideal is to make it in small quantities, as it is needed, by treatment with ammonia at 448 deg., recrystallization from pure carbon disulphide to remove traces of ammonium sulphide, and rapid drying in a steam-bath. Sulphur prepared in this way and used at once gives almost no insoluble sulphur, however it may be heated.

The Freezing-Point of Pure Sulphur.—Two samples of the above sulphur were melted without special avoidance of overheating and their freezing-points were determined with the Beckmann thermometer. The freezing-points were 119.170 deg. and 110.165 deg. respectively. Subsequent extraction showed a barely visible quantity of insoluble sulphur. These measurements agree well with the freezing-point of pure sulphur, 119.25 deg., formerly obtained by extrapolation.

IV. OTHER SUBSTANCES WHICH FAVOR SUPERCOOLING OF Su.

Effects of Chlorine, Bromine and Their Hydrides.—All these experiments were made at 448 deg. The hydrogen chloride and hydrogen bromide were dried and led through the sulphur. For the sake of comparison the chlorine and bromine were both carried in a stream of dry carbon dioxide.

Hydrogen Chloride.—This gas increased the yield of insoluble sulphur (38.6 per cent.) and prolonged heating after the stream of gas was stopped and the tube opened to the air did not greatly affect the result (35.4 per cent.). One experiment was made to ascertain whether, when the cooling is slow the adjustment to a condition of equilibrium, which causes the insoluble sulphur to disappear, is disturbed by hydrogen chloride. Only 0.8 per cent. of insoluble sulphur was found.

Hydrogen Bromide at 448 Deg.—This gas gave 34.9 per cent.

Chlorine at 448 Deg.—Dry chlorine gas gave 56.8 per cent. The product was comparatively liquid and sticky, without any elasticity and took many days to become hard.

Bromine at 448 Deg.—As it seemed likely that the large yield in the case of chlorine had been caused partly by interaction between a chloride of sulphur and the water used in cooling, the material in this case was cooled by pouring over the bottom of a dry metal pail standing in a freezing-mixture. Part of the product was ground in a mortar with chloroform to remove any bromide of sulphur, which by interaction with the moisture from the air might have added to the yield of insoluble sulphur, and was then extracted. It gave 38.22 per cent. A good deal of insoluble sulphur had remained unhardened and ran in droplets through the thimble used in the extraction and was lost. The rest of the product was treated with chloroform, and then freed from this solvent and ground up with carbon disulphide. When this had evaporated the product was pulverized and extracted. The yield in this way was 65.1 per cent.

Another portion was cooled slowly. If the presence of a bromide of sulphur had contributed to the above large yield the same influence would have been noticed, probably on a more extensive scale, in a slowly cooled specimen. The product, which was brittle when cold, was rubbed with chioroform and was afterwards extracted in the ordinary way. The yield was 1.1 per cent., so that the large yield above was independent of any action of moisture on a bromide of sulphur.

Restoration of the Capacity to Give Insoluble Sulphur by Hydrogen Chloride, Sulphuric Acid and Phosphoric Acid.—It was naturally anticipated that the above substances would also restore the capacity to give insoluble sulphur, and it was found that they did so. Even dried finely powdered metaphosphoric acid, when introduced in small amount, had the same effect. In this case subsequent treatment with carbon dioxide did not once more destory the capacity to give insoluble sulphur, the phosphoric acid being non-volatile. The following are typical experiments, all made at 448 deg.:—

	Per cent.
Hydrogen sulphide, then dry hydrogen chloride	43.3
Carbon dioxide, then metaphosphoric acid.	31.0
Carbon dioxide, then hydrogen chloride...	44.3

In the last two experiments special care was taken to purify the carbon dioxide from free oxygen by passage over heated copper. These two experiments in particular show conclusively that the normal amount of insoluble sulphur can be formed when sulphur dioxide is almost absolutely excluded. The amorphous sulphur can, therefore, hardly be a chemical compound of sulphur with sulphur dioxide, since it can equally well be formed by the help of other bodies like metaphosphoric acid and hydrogen chloride.

That the restoration occurs also at lower temperatures was determined by experiment. Thus one specimen of sulphur was kept at 140 deg. and treated first with ammonia to remove the capacity to give insoluble sulphur, and then with a few drops of concentrated sulphuric acid. Thorough mixing was secured by continuous use of a stirring apparatus. The amount of insoluble sulphur was 5.30 per cent., the proportion given by ordinary sulphur at this temperature.

In another experiment made in the same way at 140 deg., with continuous stirring, an effort was made to determine also the time required for the restoration. Sulphuric acid and powdered metaphosphoric acid were compared, the vessels being present simultaneously in the same bath. Samples were taken out of each and chilled and extracted separately. It was found, however, that in both cases the first sample, taken after ten minutes, gave as much insoluble sulphur as the later ones. The maximum amount with the former agent was 5.77 per cent., and with the latter 5.79 per cent. This reaction speed, which is shown by preliminary experiments to be much greater than that proper to ordinary sulphur, was especially surprising when the general inactivity of phosphoric acid and its vanishingly small solubility in melted sulphur were considered.

Effects of Iodine; Preliminary Experiments.—Since iodine had been found by Dietzenbacher to confer unusually persistent plasticity upon supercooled sulphur it was expected that by its use larger amounts of insoluble sulphur would be obtained. Powdered iodine dissolves rapidly and in large amounts in melted sulphur. The solution is deep reddish brown in color. Except where otherwise stated, we used two parts of iodine to one hundred of sulphur. These solutions gave off a little iodine vapor, but the loss of iodine was inconsiderable, even during one to two hours at the higher temperatures.

It was determined that rubbing the chilled, viscous mass immediately with carbon disulphide, allowing the solvent to evaporate, pulverizing the residue and leaving it for two days to solidify completely gave somewhat larger yields of insoluble sulphur when iodine was present than did the method used in earlier experiments. This modification of the former method was therefore here substituted for the mere spontaneous hardening. It had the additional advantage that nearly all the iodine evaporated with the carbon disulphide and the powdered sulphur was but slightly colored by a trace of iodine remaining.

As the yields of insoluble sulphur were uniformly larger than with any other substances except bromine, it was thought, as before, that this might be due to interaction between an iodide of sulphur and the water used for cooling. Berthelot states that the chloride and bromide of sulphur give larger proportions of insoluble sulphur by the action of water than any other mode of precipitation. It was found, however, that none of the amorphous sulphur was due to this cause. The so-called "iodide of sulphur" was prepared by Guthrie's method and used as if it had been a supercooled mass. After treatment exactly like that used in the regular experiments the residue was extracted. It gave no insoluble sulphur. This conclusion was confirmed in another way. Sulphur was heated with 2 per cent. of iodine at 448 deg. for one and a half hours and was then allowed to cool slowly in the large iron tube. While the insoluble sulphur thus had an opportunity to disappear in the usual manner any iodide of sulphur which might be present or might be formed during the cooling was bound to remain. Treatment of the residue in the usual manner, however, did not yield even a trace of insoluble sulphur. Preliminary experiments having shown that all results with iodine were much more regular and consistent than with sulphur dioxide, a more extensive and systematic series of experiments was made with this substance.

The Results with Two Parts of Iodine to One Hundred of Sulphur.—At the temperatures from 120 deg. to 310 deg. (see following table) two tubes previously held for two hours at a temperature from 10-15 deg. were placed in the same bath with two cold tubes and the four were kept at the temperature of the bath (column 1) for two hours. At 110 deg. two tubes previously kept at 125 deg. alone were used, as this preliminary superheating was necessary to melt the sulphur. At 448 deg., on the other hand, the equilibrium point was reached from below only, as a higher temperature than 448 deg. could not be obtained without the use of more than atmospheric pressure. In the following table the numbers in the second and third columns are the means of the four results of extraction (two samples of the content of each of two tubes). The individual results did not in any case differ from the mean by more than 2 per cent. of the

amount of the insoluble body. As will be seen, the proportions of amorphous sulphur formed with rising and with falling temperature correspond more closely than did the results of experiments without iodine.

Temperature.	Per cent. insoluble sulphur. Equilibrium from below.	Equilibrium from above.	Main.
110°	.....	4.05	4.0
120°	5.33	5.35	5.3
135°	8.60	8.61	8.6
150°	13.44	14.14	13.8
165°	23.76	24.51	24.1
175°	31.59	31.50	31.5
190°	37.81	38.21	38.0
220°	46.73	47.26	47.0
310°	53.70	54.61	54.2
448°	62.64	.....	62.7

Results with varying Proportions of Iodine at 150 Deg.—The following table shows the marked effect which increasing amounts of iodine produce at the same temperature. All the experiments were done simultaneously in the same bath. Twenty-five grams of sulphur were used in each of them, as in each of the preceding experiments. The quantities of iodine are parts with one hundred of sulphur:

Iodine.	0.	0.01	0.04	0.1
Per cent. insoluble sulphur..	6.7	8.16	8.38	8.90
Iodine.	0.4	1.	2.	
Per cent. insoluble sulphur...	10.52	12.26	13.79	
Iodine.	3.	4	5.	
Per cent. insoluble sulphur...	15.85	16.47	17.86	

The graphic representation of these results (Fig. 2), in which the quantity of iodine is plotted horizontally and that of insoluble sulphur vertically, seems to show that from 1 part of iodine onwards the increase in the amount of insoluble sulphur is approximately proportional to the amount of iodine.

V. OTHER METHODS OF SUPERCOOLING AND OF TREATING THE SUPERCOOLED MASS.

Another Method of Treating the Supercooled Product.—In view of Berthelot's statement above quoted, an attempt was made to ascertain the effect on the yield of various modifications in the treatment. Since the sticky amorphous sulphur is freely dissolved by carbon disulphide, but may be largely recovered in insoluble form by evaporation, it seemed probable that a preliminary rubbing in mortar with the solvent and removal of the latter by evaporation would forestall considerable reversion to the soluble form. To test this question together with that of the effect of varying lengths of time for solidification, a large quantity of sulphur was heated at 448 deg. for two hours, and then poured into ice in a thin stream. The product was divided into six portions, with the following treatment and results:—

	Per cent. insoluble sulphur.
1. Extracted ordinary way after two days	36.6
2. Extracted ordinary way after six days.	36.1
3. Treated by evaporation at once and pulverized and extracted immediately....	30.8
4. Treated by evaporation at once and pulverized and extracted three days later	32.3
5. Treated by evaporation after two days and then pulverized and extracted....	27.8
6. Treated by evaporation after six days and then pulverized and extracted....	35.9

The results show that with common sulphur our regular method of allowing several days for solidification and then pulverizing and extracting give the largest yield.

Supercooling by Quenching Burning Sulphur.—More sudden cooling can be achieved by distilling the sulphur in a fine, burning stream from a retort (placed 50 cm. above a vessel of ice and water). In this way the sulphur is kept near to its boiling-point until it actually enters the water in a rapid succession of beads. In the set of experiments made in this way a test was also made of the influence of acids on the cooled product.

	Per cent.
1. Soft beads extracted at once (uncorr.).	58.8
2. Soft beads treated by evaporation, pulverized and extracted at once.....	51.3
3. Product after six days pulverized and extracted	40.0
4. Soft beads seven days under strong nitric acid, pulverized and extracted.	30.6
5. Soft beads six days under strong sulphuric acid, pulverized and extracted.	33.2
6. Distilled with 2 per cent. iodine, treated by evaporation, pulverized and extracted after one day.....	52.1
Another single experiment similar to 2_1. Soft beads treated by evaporation, pulverized and extracted at once.....	51.1

No. 1 has no claim to trustworthiness, as the beads ran together in the extractor and the carbon disulphide did not reach the inner part of the material. On the other hand, some liquid insoluble sulphur formed an emulsion with the solvent and was lost. No. 3 corresponds to No. 2 of last set, and shows an increased yield by the new method of chilling. No. 2 corresponds to No. 3 of last set and shows a greatly increased yield by combined use of the new methods of chilling and treating the supercooled mass. The long stream of sulphur was heated in an atmosphere of sulphur dioxide produced by the combustion, and the soft beads were saturated with the same substance and therefore were perhaps still subject to its influence after they were cold. Apparently, under these circumstances the treatment of the chilled mass by rubbing with carbon disulphide does markedly increase the yield. The chilling of a burning stream raises the yield from 34 per cent. to 40 per cent. (No. 3) and the evaporation process adds 11 per cent. more (Nos. 2 and 2_1). In No. 6 the combined influence of iodine and distillation was tried. In this case it was found that the small amount of iodine remaining in the material after it had been treated by evaporation and pulverized caused a gradual increase in the yield of insoluble sulphur. Another portion of the material from No. 6 was extracted three days later and gave 52.1 per cent., while a third portion extracted thirteen days later still contained 52.6 per cent. This effect is interesting in connection with the retardation of the rate of hardening which Kastle and Kelley observed when plastic sulphur was kept under decinormal iodine solution. Contrary to Berthelot's statement we found in the above and other experiments that keeping the soft product under acids gave no greater yields than other ways af treating the same material. A much finer condition of subdivision, such as that secured by precipitation, is necessary in order that the acid may be effective.

Supercooling by Means of Ether.—Finally, cooling with ether, which in Berthelot's hands gave the largest yields, was tried. The sulphur was boiled in a tube drawn out to a capillary at the bottom. By breaking this capillary and applying pressure on the surface of the sulphur by means of a foot-blower, the material was rapidly forced out in a fine jet into a vessel of ether surrounded by ice and salt and situated at the bottom of a pail filled with carbon dioxide gas to prevent accidental inflammation. The sulphur formed minute beads and could not well have been chilled more suddenly. The product was treated by evaporation with carbon disulphide and pulverized and extracted at once. It gave 44.4 per cent. insoluble sulphur. While the yield was in excess of the largest obtained from ordinary sulphur by cooling with ice, it is considerably smaller than that given by the distillation experiments in which perhaps the liberal supply of sulphur dioxide is the determinating cause of the difference. Berthelot's 85 per cent. was from a distillation experiment, in which sulphur dioxide intervened, and he extracted the soft material at once. This experiment has been criticized already.

VI. COMPARISON OF THE BOILING POINTS AND SPECIFIC GRAVITIES OF SPECIMENS OF SULPHUR WHICH RESPECTIVELY DO AND DO NOT YIELD INSOLUBLE SULPHUR, WITH A VIEW TO ASCERTAINING WHETHER THESE TWO KINDS OF SULPHUR ARE ACTUALLY OF THE SAME OR OF DIFFERENT CONSTITUTION NEAR THE BOILING POINT.

The fact that insoluble sulphur lowers the freezing-point of melted sulphur shows definitely that insoluble sulphur comes from the solidification of a modification of sulphur which is distinct from soluble sulphur and can exist in solution in melted sulphur, at all events near to its temperature of solidification. The experiments described thus far in this paper seemed to show that this distinct modification could be destroyed and reproduced at will. It was inadmissible to suppose that the gases which appeared to effect its removal and reproduction acted simply as catalytic agents. Such agents may affect the speed of an action, but cannot afterwards alter the proportion natural to a state of equilibrium. The subsequent withdrawal of a mere catalytic agent does not diminish the amount of the product, as seems here to be the case when the sulphur dioxide is driven out. At all events these statements apply strictly in all cases where the introduction of the catalytic agent and its withdrawal are not accompanied by the performance of any work. In the present instance it is impossible that, by the introduction of gases or mere glass rods, work could have been done in amount even remotely approaching that required to accomplish such extensive displacements of the equilibrium point. On the other hand, the hypothesis that amorphous sulphur is a compound of soluble sulphur with some other substance or substances is equally difficult to accept. The molecular proportion of sulphur dioxide is very minute and other bodies may take its place, giving the same product. The idea that the insoluble modification could be really altered in amount by foreign bodies was therefore given up.

The alternative view is that once the maximum amount at a given temperature has been reached, the proportion of the insoluble modification is not affected by leading gases, for example ammonia and sulphur dioxide, alternately through the mixture. The explanation of the appearance or non-appearance of insoluble sulphur would then have to be sought in some influence which the foreign body exerted at some stage of the operation of cooling. An attempt to test this alternative was made at the boiling-point and at two temperatures somewhat below 448 deg. It is a question of determining whether two liquids, one of which does and the other does not give at least 34 per cent. of a distinct substance, differ as markedly in physical behavior as two such liquids would do if only one of them actually contained this amount of a foreign material. The boiling-points and specific gravities were the properties which could be most easily compared. A rough calculation showed that 30 per cent. of a non-volatile body of molecular weight equal to that shown by the freezing experiments to be proper to dissolve amorphous sulphur (Soo), should have elevated the boiling-point by an amount of the order of 10-20 deg. Unless insoluble sulphur had exactly the same vapor pressure as soluble sulphur at 448 deg. some difference in the boiling-points should have been observable, provided always the specimens compared were not identical in constitution. Even if the vapor-pressures happened to be identical at 448 deg., they would not be so also in a partial vacuum at 406 deg. The actual comparison described below showed that, both at atmospheric pressure and under somewhat reduced pressure, the boiling-points were identical, and that at 448 deg. and at 302.5 deg. the specific gravities were alike.

These facts, together with others detailed in the preceding paper, led therefore to the conclusion that the gases and other substances affected the sulphur during the process of cooling only, and at some temperature considerably below the boiling-point.

The Boiling-Point of Sulphur and Its Relation to Insoluble Sulphur.—A quantity of recrystallized and redistilled sulphur was placed in a wide tube, surrounded by asbestos cloth to reduce the loss of heat by radiation and convection. The bulb of a thermometer, filled with nitrogen under pressure and graduated up to 550 deg., was immersed in the boiling material. After half an hour the reading became steady at 437.2 deg. Sulphur dioxide was then passed in slowly for three hours, during which the reading did not change. Then dry carbon dioxide was led into the sulphur for one hour without any alternation in the boiling-point of as much as 0.1 deg. being observed. Then ammonia was used for an hour and the reading remained exactly 437.0 deg. That the instrument was in working order was shown by the fact that when a more rapid stream of one of the gases was allowed to enter, the bubbles of the cold gas striking the bulb of the thermometer immediately produced a slight fall in the reading. But the original temperature was recovered as soon as the speed of the gas was diminished.

Under somewhat reduced pressure the constancy of the boiling-point could not be maintained so perfectly, even while no gas was being introduced. The readings, at intervals of three to ten minutes, were as follows, the symbol interposed indicating that ammonia or sulphur dioxide was introduced at that point:—405.6 deg., 405.6 deg., 405.7 deg., (NH_3), 405.8 deg., 406.0 deg., 405.7 deg., 405.7 deg., (SO_2) 405.7 deg., 405.8 deg., 405.9 deg., (NH_3), 405.9 deg., 405.9 deg., (SO_2), 406.0 deg., 405.9 deg., (Se), 407.2 deg., 407.2 deg., 407.0 deg.

To show that actual presence of a foreign solute did elevate the boiling-point, 1.025 grams of selenium* was added at the point indicated. This produced an immediate elevation of 1.2 deg. The weight of sulphur used was about 81 grams.

*From the heat of vaporization of sulphur at 448 deg., namely 362, a rough estimate of the molecular weight of selenium in solution in sulphur may be made from the above data. The value corresponds to the formula Se_4.

The Specific Gravity of Liquid Sulphur and Its Relation to Insoluble Sulphur.—The specific gravity of liquid sulphur was determined with the utmost care at the temperature of diphenylamine vapor and at that of sulphur vapor. Sulphur which had been recrystallized and twice distilled was employed. At each temperature two measurements were made, one with the sulphur in its natural condition, the other with sulphur through which ammonia had been passed. Glass bulbs, with short exit tubes, holding 15-20 c.c. were used as pycnometers. They were completely filled with the liquid sulphur, and the expansion when they were lowered into the bath caused the excess of sulphur to overflow. The volumes of the bulbs and the coefficient of expansion of the glass were determined by calibration with mercury between 0 deg. and 100 deg. The results were as follows, the first column (I) under each temperature giving the data for the specimen of natural sulphur, and the second (II) those for sulphur treated with ammonia.

	Diphenylamine vapor : 302.5°. I.	II.
Weight of mercury filling pycnometer at 0°, in grams....	228.868	267.850
Volume at 0°, in cubic centimeters	16.835	19.701
Volume corrected to temperature	16.982	19.874
Weight of sulphur	28.876	33.742
Specific gravity of sulphur....	1.697	1.697
	Sulphur vapor : (448° ?). I.	II.
Weight of mercury filling pycnometer at 0°, in grams....	267.850	267.850
Volume at 0°, in cubic centimeters	19.701	19.701
Volume corrected to temperature	19.957	19.957
Weight of sulphur	31.981	31.916
Specific gravity of sulphur..	1.602	1.593

Coefficient of expansion of the glass, 0.000029.

Specific gravity of mercury at 0 deg., 13.5956.

The substantial agreement of the pairs of specific gravities, as well as of the pairs of boiling-points, seem to justify the conclusion that there was no difference in constitution at 300-448 deg. between sulphur which did and sulphur which did not give insoluble sulphur.

VII. COMPARISON OF THE SOLUBILITIES OF SULPHUR WHICH DOES AND SULPHUR WHICH DOES NOT GIVE INSOLUBLE SULPHUR, WITH A VIEW TO ASCERTAINING WHETHER THESE TWO KINDS OF SULPHUR ARE ACTUALLY OF THE SAME OR OF DIFFERENT CONSTITUTIONS BETWEEN 119.25 AND 160 DEGREES.

The results of the experiments on the boiling-point and specific gravity showed that in the region between the transition point (160 deg.) and the boiling-point the amorphous sulphur was present in solution in sulphur whether it could be obtained by sudden cooling or not. It remained to ascertain whether amorphous sulphur was similarly present under all circumstances in liquid sulphur below 160 deg. Since below 160 deg. amorphous sulphur is the less stable form it should be more soluble than melted crystalline sulphur. If, therefore, sulphur which has been treated with ammonia really contains no amorphous sulphur, while that which has been treated with sulphur dioxide does contain from 4 to 12 per cent. of the less stable modification, there should be a difference in the solubilities of the two kinds in a substance like triphenylmethane. Moreover, the difference in solubility observable should be exaggerated by the fact that the solution of the amorphous sulphur will displace the equilibrium by which it is related to the soluble material and so lead to the continual restoration of its natural concentration in the sulphur phase until the organic solvent is saturated with it.

This question was put to the test by preparing solutions containing known concentrations of sulphur and triphenylmethane. Ammonia and sulphur dioxide were led through the solutions for thirty to sixty minutes, and after the treatment with each gas the temperatures at which the solutions became cloudy through separation of sulphur were determined repeatedly. Constant temperatures of saturation were easily found. The results were as follows:—

Amount of S with 10 grams $CH(C_6H_5)_3$.	Temperature of saturation. After SO_2	After NH_3
11.43	138.5	138.3
15.71	143.0	143.0

These points lie close to the curve given in the preceding paper and there was no difference between the solubilities of the two kinds of melted sulphur. From this it may be inferred that the sulphur phases which separated contained identical proportions of dissolved amorphous sulphur. Of course when the solutions were suddenly cooled, only those containing free sulphur dioxide showed any amorphous sulphur in the hardened product. With the others this product was brittle and crystalline from the first, the amorphous sulphur having reverted to the soluble form during the chilling.

VIII. DISCUSSION OF THE RESULTS.

All Specimens of Sulphur Have the Same Constitution at Identical Temperatures when They Have Reached a Condition of Equilibrium—The experiments described in section VI. show that specimens of sulphur which, respectively, do and do not give insoluble sulphur are identical in constitution when they have reached a state of equilibrium at temperatures near to the boiling-point. These specimens all contain the same proportion of the liquid which, when supercooled, gives amorphous sulphur. Again, the absence of any displacement of the transition point at 160 deg. leads to the same conclusion for all specimens of sulphur which are in a condition of equolibrium at that point. Similarly the experiments described in section VII. of this paper lead to this conclusion for different specimens of liquid sulphur throughout the range of temperatures between the freezing-point and the transition-point (119,25 deg. to 160 deg.).

It is only at the freezing-point itself, when liquid sulphur passes into solid, monoclinic sulphur, that a difference seems to assert itself. The first paper of this series shows that the liquid from which insoluble sulphur can be obtained by chilling freezes at various temperatures, all below 119 deg. The experiments in section IV. of this paper, on the freezing-point of pure sulphur, show that specimens which give no insoluble sulphur freeze close to 119.25 deg. This difference between specimens which do and do not give insoluble sulphur is only apparent, however. It must be remembered that the specimens employed in the determination of freezing-points in the work of the first paper were not in a condition of equilibrium. They were obtained purposely by rapid cooling from higher temperatures. The longer they were kept before being placed in the freezing apparatus the more nearly they approached in freezing-point the samples treated with ammonia of which use was made in this paper.

Thus the study of liquid sulphur stage by stage from the boiling-point to the freezing-point shows conclusively that all specimens of sulphur, when they have reached a condition of equilibrium at identical temperatures, have the same constitution. It shows that, whether when chilled they give insoluble sulphur or not, they all contain definite proportions of the form which, if it can be supercooled, yields insoluble sulphur. It shows that the proportion of amorphous sulphur depends only on the temperature.

The Nature of Amorphous Sulphur.—At the freezing-point amorphous sulphur is clearly a third variety and not one of the two, namely, solid-monoclinic and melted-soluble sulphur (Sy), which are directly concerned in the transition. This is clear, because when present it displaces this transition point. It is equally evident that amorphous sulphur is not a third variety, but is itself one of the two liquids, namely, Sy and Su, whose transformation constitutes the transition at 160 deg. This is evident because its presence does not displace this transition point. The conclusion is therefore reached that amorphous sulphur is supercooled Su.

The fact that it is amorphous, and must therefore be a supercooled liquid of some kind, is in harmony with this conclusion. That 100 per cent. of Su cannot be secured in the hardened condition is evidently due to partial reversion to the soluble form in the plastic mass. We have shown that when proper conditions are realized, as during precipitation, this reversion may be entirely prevented.

In view of the above conclusion it is clear that every minute traces of foreign bodies influence strongly the capacity of Su to become supercooled. They evidently exercise this influence during the chilling process. Apparently those which, like ammonia and hydrogen sulphide, cause the production of no insoluble sulphur do so only by destroying the sulphur dioxide which would otherwise have the opposite effect. This is evident because recrystallization and immediate use give the

(Continued on page 29.)

Bargains in Machinery

FILTER PRESSES FOR SALE
One large, one small, nearly new. DELAWARE HARD FIBRE COMPANY, Wilmington, Delaware.

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13 Open-top tanks, 1-2 in., steel, 60 in. deep, 60 in. diam., capacity 750 gallons, single riveted, flat bottom, no outlets, good as new, cheap. Address WEST BRANCH CHEMICAL CO., Williamsport, Pa.

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PETROLEUM MARKET.

Saturday Noon, Oct. 14, 1905.

The feature of the week has been the pipe line reports, which show a further reduction in stocks of over half a million barrels, while both runs and deliveries also show a decrease. It was expected that the deliveries would show a substantial increase, as the exports have shown no falling off, while the home consumption has shown little, if any, change. The apparent discrepancy may be accounted for by the utilization of larger quantities of the products from the Western and Southern producing States. The statistical situation, however, has steadily gained in strength and operators in the Northern States are looking for further advances in the price of the product; in fact, considerable confidence is now expressed that the price of the Pennsylvania grade will reach $2 before the close of the year. The reports from the Northern producing fields during the past week have been more encouraging, as quite a number of good wells have been brought in and some extensions of defined territory are claimed to have been established. A large majority of the new wells, however, are small pumpers, but most of these, at the higher prices for crude, may be classed among the paying wells. The percentage of dry holes still continues large, and in this respect no improvement is looked for. The amount of new work under way does not show the increase expected as a result of the recent advances in price, doubtless owing to the scarcity of available territory giving fair promise of satisfactory results. It is doubtful if operators can be induced to engage extensively in wildcat operations on the approach of the unfavorable season for field work as the results of this class of development work have for a long time been disastrous. The search for gas is actively pursued, and it is hoped that unexpected strikes of oil may result, as has been the case in the past, but it is not expected that the production of the older producing States can be materially increased. The runs in the Western producing sections showed a small decrease during the past month, while the deliveries showed a substantial increase, but the stocks show a further increase of over 1,000,000 bbls. The production in the Texas and Louisiana fields exceeded 2,800,000 bbls., and the deliveries 2,300,000. The stocks amounted to 23,500,000 bbls. The price of Texas oil has been advanced to 25@30c., as to gravity; Humble to 25@27c.; Sour Lake to 26@34c., as to gravity; Saratoga to 26@28c., and Spindle Top to 35c. A synopsis of the last reports of the principle Northern pipe lines is appended:—

NATIONAL TRANSIT COMPANY.

	Aug.	Sept.
Outstanding certificates....	94,000	94,000
Credit balances.....	1,295,228	1,095,809
Net stocks.....	1,389,228	1,189,809

TIDEWATER PIPE LINE COMPANY.

	Aug.	Sept.
Outstanding certificates....	.....	.....
Credit balances.....	314,754	308,598
Net stocks.....	314,754	308,598

BUCKEYE PIPE LINE COMPANY.

	Aug.	Sept.
Outstanding certificates....	3,500,000	3,000,000
Credit balances.....	10,569,352	10,812,395
Net stocks.....	14,069,352	13,812,395

Refined and Products.

The demand for refined for export has continued fairly active during the past week and the outlook for a continuance of the large export movement is regarded as good. The situation abroad shows no important change, but reports from St. Petersburg are to the effect that satisfactory measures for the future preservation of order in the Baku oil fields were determined on at a conference, under the presidency of the minister of, representatives of the government, the oil men and industries that consume naphtha. The oil men agreed to resume production. Their demand for the dismissal of all natives from the police and the organization of a force composed of Russians at the expense of the oil men, was accepted. The government has decided to lend the Baku oil men the money necessary to repair the damages caused during the recent rioting there, but has declined their request that the loans be without interest. The sum necessary is estimated at $15,000,000 to $20,000,000, on which 5 per cent. interest will be charged.. It is claimed by the oil companies that with the ample protection assured they will resume production at once and the work of rehabilitation and reconstruction of burned plants has already begun. They further claim that they will be prepared to resume shipments within a month and supply all local demands sooner, while some of the companies claim they will be in full operation before the close of the year. The price for barreled oil has continued unchanged at 7.60c. for New York loading and at 7.55c. for Philadelphia loading. The principal foreign markets are firmer. The quotations today by cable were: Antwerp, 19f.; Bremen, 6.35m.; London, 6⅞@7d., and Liverpool, 6¾d. Freight rates are firm at 2s.@2s. 3d., hence to London, and at 2s.@3s. to Continental ports, as to port and vessel. Home trade lots have been in good request and are firm on the basis of 10c. for 150 deg. water white from tanks and 13c. in barrels.

Cases for export have been in good request and sales of over 250,000 have been reported. The price of plain tops has been firm at 10.30c. Freight rates are firm. Nominal rates for large vessels are: For Amboy, 16@17c.; Calcutta, 19@11c.; Colombo, 20@21c.; Java, 17@18c.; Penang, 14@15c.; Hong Kong, 16@17c.; Rangoon, 15@16c.; Saigon, 17@18c.; Shanghai, 18½@19c.; Singapore, 14@15c.; Yokohama, 16@16½c.

Crude for export has been in fair request and sales of about 50,000 bbls. are reported. Pennsylvania crude is quoted at 7.60c. in barrels. Cases for export have not been in request and no sales have been reported.

Crude naphtha continues to be quoted at 12c. For export sales of about 5,000 bbls. have been reported.

Closing Quotations.

CRUDE.

National Trans. certificates...$ lb.	1.56	@1.58
Pennsylvania crude, in bulk.....	—	@4.70
Pennsylvania crude, in bbls.....	—	@7.60
Residuum, bbls. for export.....	6 @	6½

CRUDE AT THE WELLS.

The following are the prices paid by the pipe lines for crude as delivered from the wells:—

	1905.	1904.
Tiona.....$ bbl.	$1.66	$1.71
Pennsylvania	1.56	1.56
New Castle	1.33	1.43
Cabell	1.16	....
Corning	1.08	1.33
North Lima.....	.94	1.05
South Lima	.89	1.00
Indiana	.89	1.00
Somerset	.89	1.01
Kansas, 32 deg.....	.51	.90
Ragland	.49	.60
Canadian Oil:—		
Petrolia	1.34	1.53
Oil Sprins, less pipeage.....	1.41	1.60

REFINED—FOR EXPORT.

Cargo lots, for export, bbls...$ gal.	—@	7.60
In bulk	—@	4.70
Philadelphia loading, bbls.....	—@	7.55
150° W. W., bbls.....	—@	9.60
In bulk	—@	6.70

REFINED IN CASES—110 FIRE TEST.

Two five low screw cargo lots.....	10.30
5,000 to 10,000.....	10.35
1,000 to 5,000.....	10.50
700 to 1,000.....	10.60
400 to 700.....	10.70
300 to 400.....	10.80
200 to 300.....	10.90
100 to 200.....	11.80
Under 100.....	12.30

REFINED—JOBBING LOTS.

In barrels, pkgs., included.

120 fire test, S. W.....$ gal	—	@	12
130 fire test, S. W.....	—	@	12½
150 fire test, S. W.....	—	@	13
in bulk from tanks.....	—	@	10
300 fire test.....	12¾	@	13½

NAPHTHA AND GASOLINE.

For Export.

Naphtha, cde., car lots 68@72 deg.	—	@12.00
crude, cargo lots, 68@70 deg.	—	@12.00
crude, 70 deg.....	—	@12.25

Jobbing Lots.

sweet, 62@63 deg.....	—	@12.00
70@72 deg.....	—	@14.00
74@76 deg.....	—	@15.00
"stove"	—	@13.00
Gasoline, 86 deg.....	—	@17.00
88 deg.....	—	@19.00
90 deg.....	—	@22.00

Petroleum Statistics.

RUNS—PENNSYLVANIA OIL.

			Day.	Total Reported.
Friday,	Oct.	6.....	72,501	319,806
Sat.-Sun.,	"	7 & 8.....	107,884	427,690
Monday,	"	9.....	35,058	462,748
Tuesday,	"	10.....	73,283	536,131
Wednesday,	"	11.....	62,426	598,557
Thursday,	"	12.....	....	.....

	1902.	1903.	1904.	1905.
Jan....	2,559,185	2,621,892	2,269,168	2,255,333
Feb....	2,190,982	2,286,710	2,227,403	2,122,868
March..	2,560,762	2,701,879	2,646,015	2,580,398
April...	2,635,929	2,626,408	2,622,226	2,329,287
May....	2,713,013	2,598,409	2,653,708	2,570,743
June....	2,529,449	2,678,675	2,618,400	2,455,299
July....	2,777,650	2,068,460	2,586,792	2,312,077
Aug....	2,664,141	2,548,279	2,719,134	2,406,463
Sept....	2,727,404	2,570,881	2,569,345	.....
Oct.....	2,791,533	2,583,319	2,482,721	.....
Nov....	2,532,007	2,281,533	2,460,459	.....
Dec....	2,609,283	2,485,664	2,560,897	.....
Year..	31,360,448	30,652,108	30,316,328	.....
Average	2,613,371	2,554,342	2,526,361	2,379,058

DELIVERIES—PENNSYLVANIA OIL.

			Day.	Total Reported.
Friday,	Oct.	6.....	97,335	453,076
Sat.-Sun.,	"	7 & 8.....	186,285	639,361
Monday,	"	9.....	88,587	729,948
Tuesday,	"	10.....	95,602	823,550
Wednesday,	"	11.....	98,436	921,986
Thursday,	"	12.....	....	.....

	1902.	1903.	1904.	1905.
Jan....	3,013,150	2,885,789	2,481,933	2,475,028
Feb....	2,282,872	2,198,668	2,339,138	2,188,455
March..	2,613,412	2,792,821	2,122,964	2,663,164
April...	2,447,301	2,556,172	2,111,541	2,561,946
May....	3,410,053	2,735,796	2,545,904	2,775,419
June....	2,708,493	2,670,232	2,184,674	2,667,960
July....	2,740,665	2,679,278	2,401,417	2,452,046
Aug....	2,911,251	2,696,969	2,455,686	2,983,347
Sept....	2,792,104	2,663,434	2,620,014	.....
Oct.....	3,218,685	2,623,539	2,574,532	.....
Nov....	2,898,693	2,529,180	2,642,309	.....
Dec....	3,117,782	2,552,745	2,653,735	.....
Year..	34,154,461	31,584,623	29,053,847	.....
Average	2,846,205	2,632,052	2,452,821	2,595,921

CHARTERS—CRUDE EQUIVALENT.

			Day.	Total.	Av'ge.
Sat.-Sun....	Oct.	7 & 8.	190,952	719,402	89,925
Monday,	"	9.....	88,429	807,831	89,759
Tuesday,	"	10.....	68,571	876,402	87,640
Wednesday,	"	11.....	72,540	948,942	86,276
Thursday,	"	12.....	78,413	1,027,355	85,613
Friday,	"	13.....	79,365	1,106,720	85,132

	1902.	1903.	1904.	1905.
Jan....	2,875,610	1,162,883	1,629,644	1,762,737
Feb....	1,715,375	1,396,350	1,399,086	2,570,438
March..	2,696,879	1,526,424	1,853,900	2,308,545
April...	1,818,864	1,887,649	2,528,100	2,367,977
May....	1,796,904	1,521,348	1,921,000	2,001,312
June....	2,303,174	1,824,211	1,706,779	2,579,424
July....	2,090,021	2,467,233	2,089,840	2,482,373
Aug....	2,221,160	2,267,480	2,069,413	2,220,804
Sept....	1,946,905	1,918,602	1,682,183	2,370,278
Oct.....	2,013,388	1,885,290	1,902,340	.....
Nov....	2,027,816	1,911,333	2,050,443	.....
Dec....	1,772,032	1,896,800	1,766,213	.....
Year..	25,228,128	21,756,317	22,608,941	.....
Average	2,106,844	1,814,610	1,884,078	2,295,987

CHARTERS FOR THE WEEK.

The total charters for refined, crude, naphtha, etc., in bulk, barrels and cases, during the week ending Oct. 13, and from Jan. 1 were as follows:—

	Week.	Year.	1904.
Refined, bbls. & blk.	273,400	9,980,800	7,462,400
Refined, cases.....	266,000	16,712,000	14,567,000
Crude, bbls. & blk..	50,300	970,800	908,300
Crude, cases.....	....	164,000	227,000
Naphtha, bbls.....	....	464,000	199,900
Residuum, bbls.....	41,700	622,700	281,500
Lubricating, bbls...	1,300	135,600	71,100
Total, bbls., cde. eq.	578,270	21,336,110	17,732,177

CLEARANCES FOR THE WEEK.

During the week ending Oct. 13, and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows:—

	Week.	Year.	1904.
Refined	11,933,019	396,774,206	339,937,801
Crude	5,000	929,594	781,620
Naphtha	3,000	10,918,533	6,963,629
Residuum ..	.....	3,294,915	7,080,974

(Continued on page 41.)

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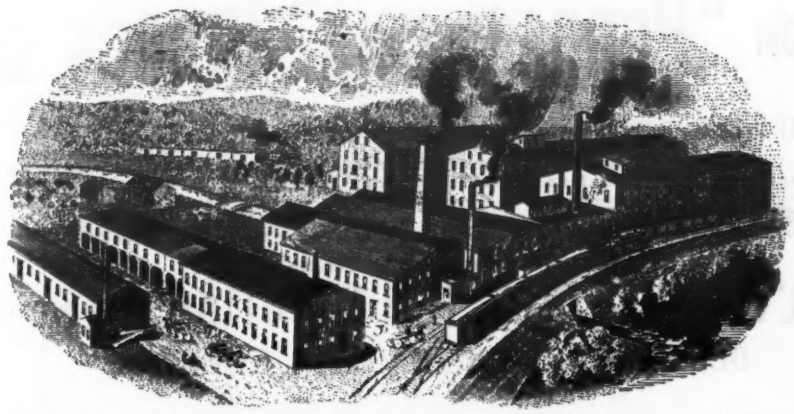

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EIGHTEENTH ANNUAL MEETING

OF THE

NATIONAL PAINT, OIL AND VARNISH ASSOCIATION.

HELD AT

Chicago, Ill., October 10 to 12, 1905.

The convention of the National Paint Oil and Varnish Association held at Chicago on Tuesday, Wednesday and Thursday of last week was successful to a degree that more than satisfied the most expectant delegate. The number in attendance were fully up to that of any previous convention, the attendance of ladies being larger than ever before. The care exercised by President Field in the selection of committees bore fruit in the form of reports of more than ordinary interest, some of which showed effective work by the committees, with tangible and valuable results. The many acknowledgments of the valuable aid rendered by the secretary, were a testimonial to that gentleman's efficiency, which must have been gratifying to those who were instrumental in his election.

President Field has fulfilled the high expectations of his friends and should have satisfied his own hopes for a successful and creditable administration.

The features of entertainment provided by a committee consisting of Messrs. Brigham, Watson and Hirst and ably seconded by a committee of ladies, was most elaborate and enjoyable, and will receive more detailed consideration in a later issue of the Reporter, the banquet, which was the closing event, having been held at too late a date to permit of its being reported in this number.

The proceedings of the business sessions are, however, reported fully and in detail in the present issue.

President-elect Wettach made a most favorable impression during his brief occupancy of the chair, before the final adjournment, and it is confidently expected that the association will make good progress under his direction.

The election of Arthur S. Somers of New York as second Vice President was also a recognition of the dry color trade which has seldom had any place among the offices of the Association and is admittedly entitled to the honor.

FIRST SESSION.

Tuesday Morning, October 10.

The eighteenth annual convention of the National Paint, Oil and Varnish Association was called to order by President Charles E. Field, at 10 o'clock a. m., on October 10th, 1905, at the Auditorium Hotel, in Chicago.

President Field said:—In calling to order the eighteenth annual convention of this association, permit me to say just one word of personal welcome. There are those present who will welcome you on behalf of the city; others, I hope, will speak for the Chicago Club, and I will not attempt to steal any of their thunder by expatiating on the glories, the history, the resources and the attainments of this imperial city or its progressive paint club; but, just a word in all sincerity, from one who has received so many marks of your consideration and confidence. I bid you welcome to this convention. May your stay here be as pleasant and agreeable to you as your coming has been auspicious and happy to us.

The convention will please come to order. (Applause.)

Mayor Dunne was presented to the President by Mr. George E. Watson, and by President Field to the convention, in the following words:—

I count it a great pleasure that we have with us this morning one who is better qualified to welcome you to Chicago than any of its citizens, in that he occupies the highest position in the government of this municipality, by virtue of the suffrage of a majority of its citizens. Mayor Dunne is so well known that he requires no introduction to any American audience.

It gives me great pleasure to present to you, as I know it will give you equally great pleasure to listen to, His Honor, the Mayor of Chicago.

Mayor Dunne was received with applause and welcomed the association to Chicago, saying:

Mr. Chairman and Gentlemen of the National Paint, Oil and Varnish Association, it gives me great pleasure, not only as a citizen of Chicago but as the chief executive of this large, prosperous and growing city, to welcome you within its gates to-day.

The city of Chicago has been anxious, for a number of years past, to attract trade in this direction; and we can assure you, on behalf of the city, that men who come here to deliberate for the good of their different lines of industry are always assured of a hearty and a generous welcome. You will find a remarkable city, in many respects; a city of two million people, among whom I suppose every race and every religion on God's footstool are represented, and we have been assimilating all of these people into good American citizenship. Chicago is anxious that all classes of people engaged in commerce and trade throughout the United States should visit it and see what its resources are. We believe that we can deal as honestly and as fairly with the merchants of the country, and upon as economical a basis as any city in the United States.

While you are here, if you want to indulge in the use of any of your principal commodities, I hope you will not use black paint (laughter), because, unfortunately, we use bituminous coal here and we have got enough of the dark color in this city. If you want to use anything use white paint, to brighten us up, but in no event resort to the red paint, because that gets all people in trouble. (Laughter.)

I trust that your deliberations will be conducive to the good of your association and that you will carry away with you pleasant recollections of your visit. I know that the men associated with you in business in this city will do everything within their power to make your stay here agreeable; and, so far as the city is concerned, if there is anything we can do, outside of calling upon the patrol wagons, call upon us at any time. (Applause.)

I again wish you gentlemen a hearty welcome and trust that when you leave it will be with pleasant recollections and with a desire to hereafter come to the city of Chicago when you wish to hold any of your conventions.

We had ordered for you a special brand of weather for the last thirty days, and I kept it up until this morning, but I hope before the day is over we will have genuine sunshine again. I thank you. (Applause.)

The President:—Gentlemen, we hope that you are going to be very much impressed by a great deal that you hear and see while you are in Chicago, but I doubt if you will be impressed by anything more than by the earnest words of welcome of Chicago's Mayor; and I am going to call upon Mr. John M. Peters, of the New York delegation, to respond, in behalf of the association.

Ex-President Peters responded as follows:—

Mr. Mayor, Mr. President, Ladies and Gentlemen:—I do not know how far my associates in this organization are in sympathy with the doctrine of municipal ownership, of which Mayor Dunne is regarded as the most intelligent exponent; but if they get any impression from his closing remarks, that municipal ownership endows the Mayor of a great city like this with the authority to turn it over to the members of the National Paint, Oil & Varnish Association, they will get a lot of converts before this crowd gets out of town. We had thought more of other forms of rapid transit, in connection with municipal ownership, than of the patrol wagons, but that seems to be uppermost in the Mayor's mind, and I infer from that that he has had more success in regulating that than he has the other forms of rapid transit. (Laughter.)

We realize, Mr. Mayor, very fully, the sincerity and heartiness of the welcome which you have so pleasantly voiced, and of which our friends here have given us a foretaste. We are few of us strangers to Chicago, and few of us are strangers to its hospitality. I do not know of any city in the United States of which the wayfarer has oftener said, "I was a stranger, and ye took me in." (Laughter.) But, however pleasant our own experiences may have been, it is not the anticipation of Chicago hospitality alone that brings us here.

This organization is a federation of local clubs, and includes in its membership clubs from all of the leading cities of the United States. Now, there is among those clubs none more zealous on behalf of the purposes of the association, none more constant in its attendance at conventions, and none whose members we delight to meet more than those of the Chicago Paint, Oil and Varnish Club, and we welcome any opportunity which enables us to meet the full membership of that club in the environment which has contributed so greatly to its success. The members of that club are typical Chicago merchants, and there is no greater merchant in the world. (Applause.)

We appreciate the greatness of this city. We appreciate, and we rejoice in the enterprise of its merchants, and the evidences of culture which we see on every hand. And, proud as we may be, Mr. Mayor, of our own localities, we feel a greater pride in being citizens of the country which has produced this great inland metropolis. Those of us who lead the simple, not to say "Equitable" life in the East, regard even a week in Chicago as a liberal education. (Laughter.)

Now, we appreciate, sir, all that has been offered us in the way of suggested hospitality and entertainment, but, whatever may come to us, there is nothing that we shall appreciate more, or be more grateful for, than the self-sacrifice you have made in trespassing upon the time which your duties and the cares of your office require, to honor us with your presence here to-day. We thank you, sir, for your welcome. (Applause.)

The President:—I should be very remiss if I did not call upon the president of the Chicago Club, Mr. Pitkin, to add a word of welcome.

Mr. Pitkin:—You have all heard the words of welcome of Mayor Dunne, and I think there is nothing that I can add to that welcome. I had intended to talk somewhat about the weather, but he has touched upon that point. I will say, however, that this club is on intimate terms of acquaintanceship with the forecaster in this city, and this weather is unpardonable. The only excuse that I can offer is that he is out of town, and probably left it in the hands of some incompetent person.

In behalf of the Paint, Oil and Varnish Club of Chicago, I welcome you, and I hope your meetings will be profitable, and the convention a success. (Applause.)

The President:—I might add to what has been said in the way of welcome, that the keys of the city are now in the possession of the Entertainment Committee. If there is anything you don't see that you want, ask them for it. If there is anything that you do see that you want, ask them for it.

Mr. Pitkin:—No. Take it.

The President:—But, if you see anything that wants you, keep away from it. If there is any gentleman present that doesn't consider himself sufficiently welcome, if he will call around to the room of the president, after adjournment we will endeavor to make him feel a little more at home.

We will now proceed to the regular order. Before doing so, I want to say that the presence of the ladies at these deliberations is most welcome to us, and we shall feel greatly honored if they will come at any time. (Applause.)

I want to say, also, that all members of local clubs will be extended the privilege of the floor, following the custom of previous conventions. And, in order that it may go into the record, I want to call attention to the fact that the chair is still using the handsome gavel that was presented to the convention last year by the Glidden Varnish Company.

Chairman Brigham, of the entertainment committee, made announcement to the convention of the entertainment features provided.

President Field then read to the convention his annual address, Vice President Wettach assuming the chair during its reading. The address was received with applause, and was as follows:

President CHARLES D. WETTACH.

President's Address.

To the Members of the National Paint, Oil and Varnish Association:—

The eighteenth annual convention of our association calls us together amidst conditions surrounding our business that are unprecedented in later years, in freedom from strife between capital represented and labor employed, in an expansion of trade that is made possible by a wise, strong and helpful administration of our government, in the absence of trouble from floods, devastations and other natural causes, and in the enjoyment of that prosperity which follows an abundant harvest of the nation's agricultural products. Divine blessings upon this country and people, of which that portion represented by our association is enjoying its full share.

One year at the head of an organization with which one has been connected for many years, forces a conclusion that it is much easier to complain of what may seem to be a lack of results, than it is to accomplish them with the forces at his command.

American ideals and methods do not contemplate autocratic power, but makes the head rather the servant of all, and upon such lines was this organization wisely founded. Eighteen years of existence have fully demonstrated the wisdom of its founders, but eighteen years mark a period of many changes in business conditions, which this association must not lose sight of if it hopes to maintain that degree of usefulness at all commensurate with its history or that the position of its members in the commercial world demands. It may therefore be advisable to alter our by-laws from time to time, without changing the object and purpose for which we were organized.

It is not my purpose to analyze the committee reports, or to enter upon a discussion of their recommendations. They will come before you in their regular order. I desire to note in passing, that the painstaking effort, requiring sacrifice of time and money in the preparation of some of these reports, exemplifies as much as any legislative enactment of this association, the aims, object and purpose of its existence.

MEMBERSHIP.

It is a pleasure to report an increase in our membership. The enrollment again of the Cleveland Paint Oil and Varnish Club, will, I know, be a welcome announcement to this convention.

—— individual members from places where there are no local clubs have been added to our list.

The Iowa Paint, Oil and Glass Association, somewhat different in organization from any local club, but embracing interests that are mutual, has signified its desire to become a member of this association, and is represented by a delegate to this convention.

In this connection, I recommend that our by-laws be amended so as to admit to membership all State or Territorial organizations that are otherwise eligible to membership, and do not embrace local clubs, at a nominal sum for membership, and that they be accredited with delegates upon the same basis as all local clubs.

CREDITS AND COLLECTIONS.

The addition of a Committee on Credits and Collections to the list of standing committees, is more than justified by the possibilities of greater benefits accruing from membership in this association. Nearly all of our local clubs are now concerned in some credit organization of their own, thus affording an unusual opportunity for the interchange of credit information. There appears to be a variety of opinion among those interested in this subject, extending even to the committee, which will present a majority and minority report. I do not recommend any definite plan, but do wish to emphasize this opportunity of largely increasing the usefulness of the association.

REGISTRARY BUREAU.

The Registrary Bureau, while of direct interest to a portion only of our members, has added very much to the general interest, and affords still greater possibilities as one of the important benefits of our association. It has, in following the action of our last convention, been a source of expense rather than revenue, but from now on it should be able to reverse the order, or at least become self-sustaining.

TRANSPORTATION AND LEGISLATION.

The subjects of transportation, legislation particularly affecting common carriers, reciprocity and changes in the tariff laws, have before been up for discussion by this association, are still puzzling the minds of our statesmen, manufacturers and merchants, and will come before you again in the reports and recommendations of your committees.

The fate of the Esch-Townsend and Quarles-Cooper bills before Congress are matters of history, but the agitation of the questions involved is attracting increased attention. Opportunity will be offered by the report of the Committee on Legislation, for this convention to assist in the upbuilding of a vigorous sentiment that will result in speedy relief to all concerned.

In sympathy with the action of our Buffalo convention, and in response to an invitation from the interstate commerce law convention, I appointed a delegation of three members of the St. Louis Club to attend the convention held in St. Louis Nov. 28 and 29, 1904, and later on your Board of Control voted a contribution of $25 toward the expenses of that body.

In response to the invitation of its promoters, I appointed a committee of two members of the Chicago Club delegates to represent this association at the reciprocity convention held in Chicago, Aug. 16, 1905. There developed an interesting expression of opinions from all sections of our country and the movement will be made the subject of a special report to this convention.

FIRE INSURANCE.

The subject of fire insurance is receiving more and more attention by various trade organizations and affords an opportunity of greatly increasing the useful-

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PHILADELPHIA.

ness of our association. The able report of that committee at our last convention prompted us to retain the services of its efficient chairman in that capacity another year. Their report not only contains much valuable and interesting information, but opens the way for substantial benefits.

While it is not within my province to recommend what action this convention should take on these and other important questions, I would suggest that its power to assist in any reformation is handicapped by lack of sufficient funds.

FINANCE.

The subject of finance, always an interesting one, becomes more so when conspicuous in name, rather than by assets.

The possibilities of this association are apparent to all who have given the matter any thought, and have been commented upon in the addresses of some of my predecessors. Under a liberal construction, our constitution does not contemplate the settlement of great social questions or the working out of economic problems, but though emphasis has been placed upon the promotion of good fellowship by placing it first in its category of objects, the correction of abuses and the removal of evils and customs that are against good judgment and sound business principles, comprise a decided part of the aims and purposes of this association; these cannot alone be accomplished by the passing of resolutions. At our last convention provision was made for a larger revenue by an increase in the tax upon constituent clubs, but an analysis of the treasurer's report will show that over 33 per cent. of our receipts were required to defray expenses incurred by our last convention, leaving barely sufficient funds with which to publish its proceedings and meet the necessary items of current expense. There is, however, some comfort for the next administration in the fact that much of the expense of printing will be eliminated. Particularly is this true of the Registrary Bureau. The electros of all titles and trade-marks published to date are now the property of the association.

A larger revenue would be desirable for the purpose of prosecuting work along the line of the convention's expressed action and in co-operating with movements of reform that are set in motion by other bodies of a more comprehensive organization, but in the absence of any other method of revenue than by tax upon our membership, I do not deem it wise to advocate further increase, though it is a matter for reflection, that while there is a lack of funds with which to undertake the objects mentioned, there is apparently no difficulty by any single club in raising any amount necessary for the purpose of our entertainment and there appears no little strife among our members for that privilege. I believe the conserving of our resources, even to the extent of omitting the publishing of proceedings in pamphlet form if necessary, and limiting the publishing of trade-marks and titles to the resources of that bureau, will provide future administrations with more funds with which to prosecute and further the objects of this association.

This brings me to the subject of

ENTERTAINMENT.

For the purpose of which, I strongly recommend a limit of expense. Experience has demonstrated that our entertainment at places where there were no local clubs was amply provided for in the regular tax of $10 upon each gentleman and $5 for each lady. Surely the rising of a sum not exceeding one-half as much in addition will more than cover all requirements of local pride and hospitality, and by thus eliminating the possibility of strife among the larger clubs to outdo each other, will increase the desire of all to entertain the convention. Such limitation should be a matter of by-law, and therefore recommended for consideration at this convention.

I desire to recommend an immediate change in our by-laws, delegating the power of recommending the place of meeting from the Committee on Entertainment to the Committee on Nominations, as was originally the law, the change having been made when it was decided to hold our conventions in places where there were no local clubs. As we are now returning to the custom of accepting invitations from local clubs to meet in their respective cities, the Entertainment Committee should be appointed from the membership of the club that becomes the host of the convention and relieved of the responsibiltiy of considering the place of meeting, avoiding possibilities of an anomalous arrangement of recommending an invitation from one club and electing a president from another.

While the idea is not a new one, I venture to again suggest the desirability of a closer union with the Paint Grinders' Association, the Varnish Makers' Association, and all other organizations that are independent of, but eligible to membership in this association, that we may all have the benefit of the combined wisdom and larger experience in the consideration of such subjects as transportation, legislation, registration, credits and many others of a common interest. To that end I recommend a change in our by-laws to provide that organizations that are auxiliary in their objects to those of this association be permitted, and be requested to nominate from their membership the chairman of the committee covering the subject they represent.

I am pleased to announce the receipt of a letter from the president of the Varnish Manufacturers' Association, stating that orgaization would send a delegate to this convention, and if present, I suggest he be extended the privileges of an honorary member.

In conclusion, permit me to pay this slight tribute to the interested and faithful services of your officers and all who have been called upon for any service during the past year.

Out of over one hundred committee appointments, there were but two or three positive declinations to serve, showing a remarkable interest and loyalty in the work of the association. During the year inability of service on account of sickness has necessitated some few changes, but the work has been faithfully attended, and the reports form a compendium of interesting facts and information, the value of which clearly demonstrates the advantages of a membership in this association.

With no desire to appear invidious, I can safely say that the faithful and efficient work of your secretary, far beyond that indicated by his report, and under many trying circumstances, has contributed more than that of any other person to our success during the past year.

It has been a matter of much regret to me that I could not accept many of the invitations extended from local clubs during my period of office, but desire here to gratefully acknowledge the many evidences of kindness and courtesies that have come to me, adding greatly to my obligations, as well as to the disappointment that even greater results could not have been accomplished.

Mr. Wettach:—Gentlemen, you have heard read by your president the very interesting address, which carries with it some very important recommendations, which should be considered by the Board of Control, and the chair will be pleased to entertain a motion.

Mr. President:—I move that it be so referred.

The motion was duly seconded and carried.

Mr. Cheesman:—At this time it seems necessary to introduce the following resolution. The Board of Control, realizing that immediate action was necessary on the part of the convention toward the adoption of the suggestion of the President, "that the nominating committee instead of the entertainment committee report to the convention the invitations for place of next meeting," voted unanimously in favor of the following resolution:

"Resolved, That section 1, article XXI, be stricken out of our by-laws, and the following section be inserted in its place:—

ARTICLE XXI.

" 'Section 1. The president shall appoint an entertainment committee of three, who shall arrange such entertainments as it shall deem proper for the coming convention. They shall receive the assessments for same as provided in section 2, and make all the necessary disbursements from said fund.

" 'The president shall also appoint a ladies' reception committee of three ladies, to assist in the entertainment of ladies attending the convention.' "

We also moved that the following addition be made to Article VI of the by-laws, as they now stand:

"The nominating committee shall also receive suggestions and invitations for place of next meeting, and report their recommendation to the convention."

I move that those resolutions be adopted. They were unanimously approved by the Board of Control.

The motion was duly seconded and carried.

The President:—The next order of business will be the secretary's report.

The secretary of the association, Mr. Louis L. Drake, then read his report to the association, as follows:

Report of the Secretary.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

It is scarcely possible to indite a report that would give a comprehensive knowledge of what has been done during the year without going into details. No attempt will be made therefore to make mention of the multitudinous duties of your secretary; suffice to say that he has given a large part of his time to these duties, and where mention is not made to the contrary, all matters referred to him at the last convention or since then have had his best attention. In this connection it may be said the correspondence of the office has increased very considerably, and the accumulation of letters, documents and other paraphernalia now fills a small office

The work of the year has necessitated being in correspondence and close touch with various departments of the government, notably several bureaus of the Department of Commerce and Labor, the Treasury and Agricultural Departments. In each instance a ready and considerate attention was received.

AGRICULTURE DEPARTMENT.

In accordance with the resolutions passed at the last convention a vote of thanks was forwarded to the department and a cordial earnest reply was received from Secretary Wilson, who stated that the "conservative system of turpentine recently completed by the department was being followed by other new and extensive experiments in Florida which looked at a further conservative treatment of pine trees for naval stores," and that "should the experiments fulfill the department's anticipations a very marked advance will ..ave been made, not only in prolonging the naval stores industry, but also in preserving, by careful use, Southern pine forests."

DEPARTMENT OF COMMERCE AND LABOR.

The Bureau of Manufacturers early made request that our members forward any suggestions or ideas looking toward the promotion of the usefulness of the bureau, and letters to this effect were sent to the various clubs.

MANUFACTURERS' CENSUS.

In the early part of the year the Bureau of Census of this department took a census of manufacturers. Some of the questions in the general schedule were objectionable to many of our members as being of too inquisitorial a character, especially as to the financial and other details of their business, while the supplemental schedule of paints and varnishes was particularly obnoxious, as it called for a detailed list of all purchases "forming a component part of products," including quantity and price; this being followed by a demand for "the value of all products (itemized) manufactured, including by-products." Your secretary being unable to obtain any relief from the Bureau of Manufacturers mainly owing to the fact that the census was being taken under Congressional enactment, brought the matter to the attention of the New York Club, which appointed a special committee, of which he was a member, and as a result, through the courtesy of the Oil, Paint and Drug Reporter, a meeting was held with the director of the census, Mr. S. N. D. North, who, after hearing the various objections, promptly decided that the special schedule be withdrawn and that manufacturers need not answer any questions in the general schedule which they might think would be inimical to their business, and he especially requested that our members make suggestions regarding the schedules to be issued for the next census. Although the action of the director brings temporary relief from such paternal legislation, nothing but an amendment to the present census laws can bring absolute security to manufacturers from prying eyes, and to this end our Legislative Committee makes the necessary recommendation. Without going into the merits of this question the results achieved are respectfully offered for the consideration of our weaker brothers, or those "doubting Thomases" whose constant cry is "What good does the association do?"

TREASURY DEPARTMENT, AND ENAMEL WHITE.

Through one of the numerous changes that have been made in the departments, action was at one time taken which seemed to reverse the position of the department with regard to the classification of enamel white. Prompt reference of this matter to the department was successful in getting it to "stand pat," and therefore it has not been necessary to do over again the work of nearly two years on this matter. It was expected that an appeal to the courts would be taken last winter in the cases previously decided adversely, but as no samples had been taken from the shipments, such action was necessarily postponed, and it has only been recently that such samples have been obtained and the first case will therefore come to trial in Cleveland the Tuesday following this convention, and it is urged that all those manufacturers who want the American product protected will be present at that time and give their evidence.

PAINT, OIL AND VARNISH PROTECTIVE ASSOCIATION.

Another matter of more than passing importance is the existence in New York of a concern calling itself the Paint, Oil and Varnish Protective Association. This name is so similar to ours that some of its mail has been delivered to and read by your secretary. These letters indicated that the so-called protective association was merely a collecting agency composed of and run by one person, so far as is known, and is of purely a blackmailing character, being afraid even to give a street or postoffice address. Aside from the fact that this name is an imitation and infringement of that of our association, and believing that such an institution should not be allowed to exist, your secretary accordingly some months ago called the attention of the postoffice authorities to the case. Up to the present time no report of the investigation made by the Chief Postoffice Inspector has been received from him. Our association has had an honorable existence for nearly twenty years, and it would seem, in view of this infringement of its name, it might be desirable, if not necessary, at some future time to be incorporated so that it might be protected in the exclusive use of the name it has enjoyed so long.

TRADE MARKS.

Under the direction of the Registry Committee a complete filing system was put in effect for the proper registry of trade marks, titles, etc., provided for by the rules adopted at the last convention. Previously no entry was made of trade marks, names and titles received by the secretary, so the only record was the letter making application for registration until such time as it should be published. The system now in effect is what is known as the card system; each trade mark, name or title being entered on a card and cross indexed. The interest in the registration of titles is very gratifying and as a result, in addition to a goodly number of titles being registered, was the means of attracting a number of new members. Although an appropriation of $150 was made to cover the expense of establishing the system it was accomplished at a cost of only $62.35 and it is with pleasure that it is reported that for the first time the bureau has brought into the association an income, it amounting to $56.

MEMBERSHIP.

A special effort has been made during the year to increase our membership, especially of clubs. The efforts started during the previous administration to bring the Cleveland Club back to the fold were continued and through the efforts of Mr. Fred A. Glidden, of that city, and chairman of the Membership Committee, this has been accomplished and new names are thus added to our membership.

As a result of personal solicitation eight individual memberships have been taken as follows:—

Northern Paint Company, St. Paul, Minn.

Jamestown Paint and Varnish Company, Jamestown, Pa.

Jones & Dillingham, Spokane, Wash.

Hanline Bros., Baltimore, Md.

Hirshberg, Hollander & Co., Baltimore, Md.

Henry Woods Sons Company, Wellesley, Mass.

Jenkins Paint and Oil Company, Norfolk, Va.

A. H. Steward, New Orleans, La.

The latter concern through the assistance of Mr. R. W. Evans.

The income of the association from this source has been increased by $40, which, with the amount above reported from the Registry Bureau, makes a total income from new sources of $96.

After a correspondence extending over several months the Paint, Oil and Glass Association of Iowa will present for your consideration a proposition for membership. Should this association, comprising members in the towns throughout the State of Iowa, be admitted it would add thirty-nine further members to our rolls.

In compliance with the action taken at the last convention an invitation was sent to the Paint, Oil and Varnish Club of Portland, Ore., to affiliate itself with us. After a correspondence covering a year, and notwithstanding the assistance of and personal solicitation by Mr. J. H. McNulty the club has recently voted not to take membership with us, the reason being that they hope to organize a Pacific Coast association, but it might be because they may feel that owing to their being located at such a distance from the other clubs they would not be benefited to the amount of per capita they would be required to pay. It is expected that Mr. F. E. Beach, the president of the club, will be present with us, and it is hoped that as an outcome the club may reconsider its determination.

Your secretary visited Baltimore in an endeavor to get the club there to take membership with us; he was unsuccessful, however, and feels that such a result is practically impossible. They have in operation one of the largest and best clubs in the country, having over 80 members, but composed almost wholly of dealers, who do not feel they have the same reasons for joining as manufacturers or the larger jobbers.

A club should be organized in Syracuse, but the secretary has about reached the end of his ability in this direction. Twelve firms are willing, but will not organize without another whose only reason for refusing is probably because they would be the so-called "unlucky thirteenth."

Almost every local club has increased its membership, making a total of 46, which, with those reported above, amounting to 23, added to former membership, makes a total of 592, or so far as it is possible to ascertain the largest membership we have ever had.

In 1904, at the request of your secretary, a special committee on credit bureau was appointed by President John M. Peters. Partly as a result thereof, and from the new interest created, five clubs have since added some form of credit plan or other, and with the plans previously in effect in Philadelphia and Pittsburgh makes a total of seven clubs having this valuable adjunct to their organization. It can be confidently stated that the work in the direction of credit plans, the efficient work done by the Fire Insurance Committee for the past two years under the leadership of Mr. Milton S. Clapp, and the value of the Registry Bureau strongly appeals to the members of the association and is the means of their taking renewed interest in its work, as one or the other of these subjects attracts them all, and must convince them that notwithstanding the glorious past of the association from the days of Charles Richardson and its founders to President Charles E. Field and our present members it still has before it the best days of its usefulness.

The President:—Gentlemen, you have listened to a very able report from your Secretary. It is open for discussion. It does not carry with it any recommendations.

On motion made by Mr. Peters, and duly seconded and carried the report of the Secretary was received and placed on file.

The roll of officers, clubs and delegates, was then called by the Secretary.

The President:—The calling of the roll indicates the fact that we have representatives present from more than five clubs, which latter is necessary to form a quorum. The next order of business will be the Treasurer's report.

The Treasurer, Mr. J. Frank Boydell, thereupon read his report, as follows:—

Treasurer's Report.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

Without going into the details of the "troubles" of your treasurer, he is pleased that he can report that all per capita and dues have been paid on the basis of membership in the various clubs as reported by their officers. These reports, however, differed in some instances from the list of members as reported to the secretary of the association at the time of the last convention and differ again from the list recently sent to the chairman of the Membership Committee. These differences are caused first by some clubs reporting individuals as members instead of firm memberships, as contemplated by the by-laws, and again by the fact that the fiscal year of the clubs vary from one another, and few, if any, correspond with the fiscal year of the association and, while all dues are supposed to be payable in January of each year, our report shows that they were paid at intervals covering our entire fiscal year. Your treasurer would therefore recommend that all memberships be reported or returned in the names of the firms, corporations or concerns holding such memberships instead of in the names of individuals representing them; also that per capita shall be paid on, and delegates to the convention of the association shall be elected upon, the membership at the time of said annual meeting of clubs, and further recommends that the constituent clubs of the association be requested by the secretary to change their fiscal year to correspond as closely as possible to that of our association, holding their annual meeting at a time just prior thereto, preferably during the last two weeks in September, and it is recommended that Sec. IV., Art. III. of the by-laws be amended to read as follows:—

"Annual dues shall be payable in advance during the month of November."

NATIONAL PAINT, OIL AND VARNISH ASSOCIATION.

TREASURER'S REPORT.

RECEIPTS.

Oct. 10, 1904. Balance.....	$434.72
Oct. 12, 1904. Leech, Neal & Co., dues, 1904, IN.....	10.00
Oct. 20, 1904. Drugs, Oils & Paints, Phila., Pa....	25.00
Oct. 24, 1904. Receipts for Buttons	98.00
Oct. 29, 1904. Oil, Paint & Drug Reporter	25.00
Jan. 6, 1905. Kay & Ess Co., Dayton, O., IN.....	5.00
Jan. 6, 1905. Lowe Bros. Co., IN.....	5.00
Jan. 10, 1905. A. L. Webb & Son, Baltimore, IN.....	5.00
Jan. 10, 1905. Hanna Paint Mfg. Co., Columbus, IN.	5.00
Jan. 10, 1905, Jamestown P. & Var. Co., IN.....	5.00
Jan. 11, 1905, Paint & Oil Club, New England (52)	156.00
Jan. 11, 1905, Warren Paint Co., Warren O., IN.....	5.00
Jan. 17, 1905, Paint, Oil & Var. Club (New York), 76	228.00
Jan. 23, 1905, Paint Mfgs. Club (Philadelphia), 21...	63.00

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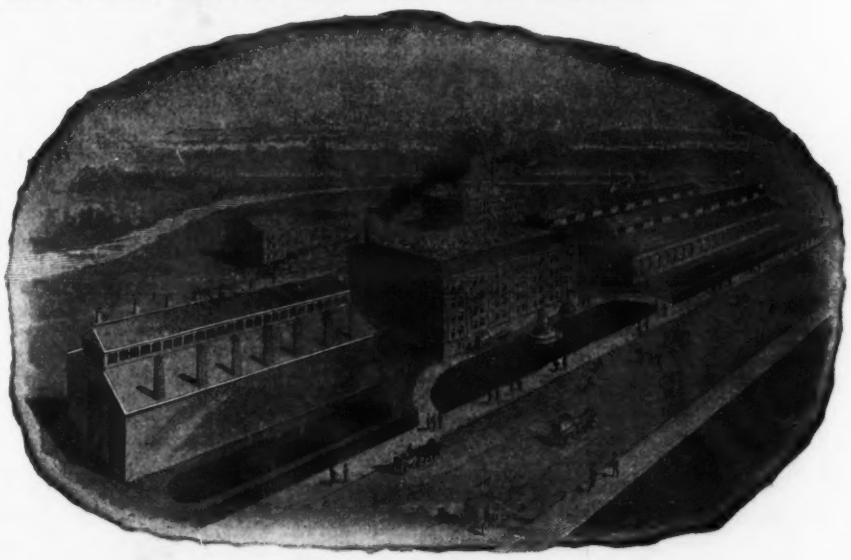

MANUFACTURERS OF

STRICTLY PURE WHITE LEAD—DRY AND IN OIL.

VERY FINE—VERY WHITE AND VERY SUPERIOR.

MADE BY OLD DUTCH PROCESS.

THE MOST BRILLIANT RED LEAD FOR PAINTING.

PURE ORANGE LEAD FOR COLOR MAKERS.

PURE POWDERED LITHARGE.

REFINED GLASS MAKERS' RED LEAD AND LITHARGE.

SUPERIOR VARNISH MAKERS' RED LEAD AND LITHARGE.

THE DAVIS LEAD COMPANY,

OFFICE—PARK BUILDING. PITTSBURGH, PA.

Jan. 31, 1905, Stockton P'nt Co., IN.....	5.00	
Feb. 20, 1905, Paint, Oil & Var. Club, Chicago, 76..	228.00	
Mch. 20, 1905, Buffalo P. O. & Var. Club,16.....	48.00	
Mch. 20, 1905, Cincinnati Paint Club, 22.....	66.00	
Mch. 31, 1905, Am. Paint Co., New Orleans, IN...	5.00	
April 13, 1905, Paint, Oil & Var. Club of Col., 12.	36.00	
April 17, 1905, St. Louis P., O. & V. Club., 63....	189.00	
April 24, 1905, Paint, O. & Var. Club, Pittsburg, 25.	75.00	
May 10, 1905, Jenkins P. & O. Co., Norfolk, Va., IN.	5.00	
July 3, 1905, Det. Paint, O. & Var. Club, 16.....	48.00	
July 21, 1905, Jones & Dillinger, Spokane Falls, IN	5.00	
Aug. 28, 1905, Kansas City P., O. & V. Club, 22....	66.00	
Sept. 7, 1905, Paint, Oil & Var. Ass., Milwaukee, 15.	45.00	
Sept. 9, 1905, Paint, Oil & Drug Review, Chicago....	25.00	
Sept. 18, 1905, Louisville P., O. & Var. Club, 10.....	30.00	
Sept. 28, 1905, Hanline Bros, Baltimore, IN.	5.00	
Oct. 2, 1905, Hirshberg, Hollender & Co., IN....	5.00	
Oct. 7, 1905, Registration Telies to date.....	56.00	
Leech, Neal & Co., 1905.		$2,016.72

DISBURSEMENTS.

Oct. 19, 1904, Secretary's Compensation, 1904	$250.00	
Oct. 19, 1904, Printing account, 1904	196.25	
Oct. 19, 1904, Stenographer's report of Convention, 1904	100.00	
Oct. 19, 1904, Officers' expenses to Buffalo, 1904..	150.00	
Oct. 19, 1904, Correspondence account, 1904.....	63.37	
Feb. 20, 1905, Special approbation Regist. Bureau	62.35	
May 9, 1905, Approbation Interstate Com. of Law.	25.00	
June 15, 1905, Expense Trans. Fgt. Class Com.	8.00	
Oct. 1, 1905, Central & Western Pass. Assn. dep.	7.00	
Oct. 1, 1905, Correspondence for year 1905.....	83.15	
Oct. 1, 1905, Secretary's Compensation on account year 1905	350.00	
Oct. 1, 1905, Printing account to date.....	588.10	
Oct. 1, 1905, Postage account to date.....	72.00	
		$1,955.22
Balance		$61.50

Respectfully submitted,
J. FRANK BOYDEN, Treas.

Mr. Boydell:—The auditor of the club is not present, and the report has not yet been audited.

The President:—The proper disposition would be to refer it to the auditor, and the recommendations made by the Treasurer should be referred to the Board of Control. The report is before you and anything about it which you do not understand I am sure the Treasurer would be glad to explain.

Mr. Longstreth:—I move that the report be referred to the auditor, and the resolutions to the Board of Control.

The motion was duly seconded and carried.

The President:—Have any of the delegates any questions to submit to the Board of Control? Now would be the proper time to do so. Any resolutions from local clubs? If not, we will proceed to the taking up the committee reports and the first report will be that of the Committee upon Transportation and Classification.

The report of the Committee was read by the Chairman, Mr. E. T. Trigg, and was as follows:—

Report of Committee on Transportation and Classification.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

One of the first things done by your Freight Committee was to ask the secretary of your association to send out the following communication, which he did under date of June 15:—

"Your committee on freight matters desires to accomplish as much as possible for the benefit of the association, and to that end asks that members having freight grievances of any nature report same to some member of the committee, whose names are given below, selecting the committeeman located nearest to the point from which the complaint is made."

We were sorry not to have received any responses to this communication, as we were anxious to use our efforts in the direction most desired by those interested in the work of this organization. Without any direct requests or suggestions the only matter of any consequence taken up by this committee during the past twelve months has been that of attempting to secure a modification or adjustment of the present freight rates charged on advertising matter shipped by paint manufacturers and jobbers in connection with merchandise.

The present ruling on advertisement matter is certainly a very unfair one, and it has been our aim to impress this point on the various committees in so forceful a manner that they cannot help but see the justice of our position and grant eventually the relief which we ask for in the rates charged on shipments of advertising.

As a matter of information, the present ruling on advertising matter in all territories is first class, while merchandise of the nature which the members of this association ordinarily ship, takes third and fourth class rate in less than cars. It is true in certain sections a small quantity of advertising will be carried at the same rate as the merchandise itself, provided that the advertising is packed in the same package with the goods. This, of course, is impracticable and unfeasible as a general proposition in our business.

Appeals have been made to the various Classification Committees asking that the present classifications on advertising be reduced, and that advertising matter be placed in at least as low a class as merchandise, this rate to apply on shipments of advertising whether shipped with the merchandise or shipped alone, our appeals being based on the principle that the carrier is interested indirectly in the extension of the manufacturer's and jobber's business and the consequent increase in shipments.

Instances of the inequity of freight rates on advertising matter are not hard to find. One shipment of paint, accompanied by a box of advertising matter, shows a rate of 68 cents per hundred pounds on the former and $1.35 per hundred on the latter, or practically double rate on advertising matter. Another shipment shows a rate of 78 cents on paint and $1.47 on advertising matter; a third shipment 32 cents on the former and 80 cents on the latter. In nearly every instance the advertising rate will be found to be from 90 to 100 per cent. above the merchandise rate. The injustice of the system is evident. Instead of the rate on advertising matter being greater it should be smaller or merely nominal. It is an expense incurred by the manufacturer for the sole purpose of inducing larger shipments. Advertising matter is all cost to the manufacturer, and to still further penalize it by a high freight rate is, we contend, not only wrong, but bad policy as well. The railroads should welcome and encourage shipments of advertising matter as conductors to the mutual interests of both shipper and carrier. This principle is already carried out in the specially low rates made by railroads on "emigrants' movables" and to their "home-seekers' excursions," on which merely nominal rates are made on the original business, with a view to inducing further business at more profitable rates. We believe that the railroads will eventually be induced to apply the same principle to the carriage of advertising matter.

Experience has taught us that in a matter of this kind, it is practically useless to make a written application for relief without following up the application with personal work before the committee itself when in session.

During the past twelve months your committee has made formal application to the three Classification Committees, namely, the Official, Western and Southern, for a modification of their present rulings on advertising.

The last meeting of the Southern Classification Committee was held at Hotel Belvedere, Baltimore, Md., Tuesday, June 6. The ruling on advertising matter in this territory is as follows:—

Rate for the highest classed article must be charged on any package containing articles of more than one class. This rule is not intended to prohibit the shipment of printed advertising matter in package goods, provided that the printed advertising matter does not exceed 2 per cent. of the total weight.

At the meeting held in June your committee was represented by Mr. F. N. Johnson, traffic manager for John Lucas & Co., Philadelphia, who was familiar with the subject in hand, and kindly consented to represent your committee in connection with Mr. F. G. Elliott, of the same company, who represented the Freight Committee of the Paint Grinders' Association.

Both Mr. Elliott and Mr. Johnston were treated very courteously by the members of the committee, and while their efforts did not show immediate tangible results we feel that preliminary work was done at this meeting which will bear fruit later on. Mr. Johnston made some valuable suggestions after having attended this meeting, from which we quote the following:—

The first point made for the National Paint, Oil and Varnish Association before the Southern Classification Committee, was that the present allowance of 2 per cent. does not cover the weight of advertising matter usually shipped with an opening order; furthermore, that it was not reasonable, or rather, feasible, for the advertising matter to always accompany the order, and even if it did accompany it could not be packed in with the goods, as the classification demands, but must be in separate boxes or packages.

The 2 per cent. clause was referred to as in some instances possibly being sufficient if taken on the year's business of a house, but as most advertising matter accompanies the opening spring order it is not sufficient on the individual shipment.

After addressing the Association I invited the members to ask questions, but there were very few who seemed disposed to do so, except that they confirmed the idea that it was almost impossible to have the advertising matter placed in the boxes with the goods, and that they must be put in separate packages.

No definite decision was given Mr. Johnston at the time, but the following communication dated June 16th, from Mr P. J. CcGovern, chairman of the Southern Classification Committee, was received as indicating the decision of the committee:—

We are directed by committee to say that the members did not feel in position to recommend any change in the present classification.

The next committee meeting was that of the Western Classification Committee, held in July this year at Charlevoix, Mich. As it was impossible for any of the members of your committee to attend that meeting, Mr. C. F. Smale attended as the representative of your chairman. As was the case at the meeting of the Southern Classification Committee, we have no immediate results to show for the representation before the Western Classification Committe at Charlevoix, but we believe that Mr. Smale's efforts in representing your committee were very beneficial, not only in bringing the matter before the individual members of the Western Classification Committee in a strong and forecful manner, but as well as giving us some valuable suggestions, as covered by this report, which reads as follows:—

Acting upon instructions I took up the question of a reduced classification on advertising matter, which you wished me to follow up at the meeting of the Western Classification Committee, to be held at Charlevoix, Mich., July 18, and for which you had already taken the necessary preliminary steps. Upon conferring with Mr. Meadows, the secretary of the committee, I learned that all matters on the docket would first come before a sub-committee which would meet at Charlevoix on July 13th, 1905. They would take up the different items one at a time and listen to the arguments of the different petitioners and then make such recommendations to the general committee as they should consider just, it requiring a two-third vote of all members present to carry any question.

I got from Mr. Meadows a list of the Chicago members of this sub-committee and called upon as many as possible before leaving for the place of meeting, which I did on Wednesday evening, July 12th, at 7:35 p. m., arriving there Thursday morning at 9:30 a. m. As all the members had not reached Charlevoix on Thursday, the sub-committee simply met and adjourned, which gave the horde of petitioners then present an opportunity of taking up their grievances with the members of the sub-committee who were there on time.

On Friday morning the sub-committee got down to business, holding two sessions each day, one in the morning and the other in the afternoon, and on Friday a night session, which was the only one held.

I found upon reaching Charlevoix and receiving a copy of the docket, that our petition for a reduction in the classification on advertising matter from first-class L. C. L. and third-class C. L. to fourth-class L. C. L. and fifth-class C. L. had not been received in time to be docketed, hence I was at a disadvantage in forcing each member to go on record on the direct question at the meeting. Upon conferring with Mr. Meadows, he arranged for me to go before the meeting under item No. 19 on the docket which was a question of eliminating certain words from the present description of advertising in the classification, and while it broadened the term did not in any way affect the class. It was his idea that I could start upon this clause, which was a step in the right direction and then plead for a lower class. This would give me a chance to get before the meeting, which I agreed to take advantage of.

It was then a question of getting before the sub-committee at a time when they were fresh and feeling good and would give me plenty of attention. I did not want to get before them near the close of any session when they were tired and inattentive. On Saturday afternoon, after considerable sparring my time at last came and I went before the committee and opened up as Mr. Meadows suggested. After a few preliminary remarks upon the question as docketed, I then made a strong plea for a reduction in the classification from first-class L. C. L. and third-class C. L. to fourth-class L. C. L. and fifth-class C. L., calling particular attention to the advantages that are bound to accrue to the transportation lines through increased business upon a reduction in the classification on advertising matter. I explained by illustration from the matter that I had with me how all the advertising matter sent out by paint manufacturers and jobbers was of an instructive and educational nature and argued that our advertising matter created a demand for goods that did not already exist, thereby producing new business for both of us.

Asked if this was not simply a case whereby one manufacturer by his advertising would get business at the expense of another, I replied "no," giving as a reason the fact that it was customary for each manufacturer to have but one local agent in every town, and also calling their attention to the fact that I was not there as the representative of any one individual or firm, but as the representative of the National Paint, Oil and Varnish Association, comprising all the manufacturers and jobbers of any consequence in this country. I called their attention to the fact that this advertising matter represented nothing but expense to the shippers, that it was sent out with a view to increasing business and that if it produced the object for which it was sent out the original carrier is bound to share in the result. I asked them if the shipper was willing to go to the expense of getting up this matter and looking after the judicious distribution of it if it was any more than right that the transportation companies should meet the shipper half way by giving the lowest rates possible.

After some fifteen minutes talk along this line, during which I noticed some of the members making notes on their dockets, I answered several questions, one of which was "About what percentage of each shipment would consist of advertising matter?" I told them this would be hard to figure out on a percentage basis for each individual shipment, giving as an illustration that in a town where the people had not been in the habit of painting up their buildings and household effects we were more liable to send large shipments of advertising matter than we would to another town where the people were awake to the possibilities of paints.

This was all for the present. I was then in the same position as a number who had gone in before me. I had had my say and was waiting to see what would develop. I had been talking advertising matter to each and every member of the committee as the opportunity presented itself ever since I had struck town and no doubt some of the more timid had become tired of the subject by this time, but I did not propose to let up. The sub-committee were kept busy continually listening to petitioners up to the time when the general committee convened. On Monday evening I learned that there would be no recommendations turned over by the sub-committee, but that the general committee would take up each item and pass upon it without any formal report. This proceeding did not appear to be a good one for the shippers' cause, as many of the old time followers of these meetings told me.

Monday evening I had a long talk with Mr. C. B. Hopper, of the Goodrich Transportation Co., who told me they recognized the justice of our claim but did not see how they were going to let down the bars for us without letting a number of other shippers through, who he claimed, were not entitled to the same consideration as we were. I told him if it was good for us it was good for everyone who advertises.

On Wednesday I learned that they had not altered the present classification. Upon consulting several members they told me it would be useless to try and get another hearing before this meeting on account of the large docket before them, and also suggested that it would be better to leave it in the shape it was and bring it up at another meeting. In conclusion I wish to make the following suggestions for your consideration, which are the results of my careful observations during the meeting:—

1st: Prepare a new petition to be filed in the name of the National Paint, Oil and Varnish Association.

2d: Have each member of the association file a petition.

3d: Have each member of the association take this matter up with their local transportation officials and push it along lines which may be formulated between say October 1st, 1905, to the meeting date in January, 1906.

4th: Get from each shipper if possible an approximate statement of his tonnage together with a statement of his advertising tonnage.

5th: Get from each shipper the average weight and value per cubic foot of his advertising matter.

6th: Be in position, if possible, to give the committee an estimate of what percentage of increase this proposed change will bring. As one of the committee expressed himself—we want figures.

7th: Get this matter started by about October 1st, 1905, and keep it rolling all along the line with increased force until the January meeting, and you are bound to win.

Keep after the members of the committee, as well as the chairman, and give them plenty of time to investigate by their own methods, which are by consulting the local manufacturers and by having him posted you can't fail. There are a number of other items in this classification which can be taken up and modified for the benefit of the shipper, but this first is the most important.

Our application for reduced rates on advertising matter was not placed before the Official Classification Committee in sufficient time to take it up at their last meeting. A written application covering the grounds has been made for consideration by the Official Committee at their next meeting to be held in New York City on October 3d. Your committee will be represented before this body, but as this report is being made up in advance of the meeting of the Official Classification Committee, no information can be given regarding it.

As the figures referred to above indicate, the rate charged on advertising matter at the present time is from 90 to 100 per cent. in excess of the rate on merchandise. It does not take much figuring to determine how much additional advertising and how much additional benefit could be derived by the members of this association through a reduction in the present rates to at least the same rates as are being charged on merchandise.

We believe this is a very important matter and that every member of this association, whether on the Freight Committee or not, should make a personal fight for it. We feel the need of bringing all the pressure possible to bear in order to accomplish the object in view.

Your committee respectfully suggests that the benefit of the work already done be not lost through failure to push this proposition through to a successful issue, and recommends that the new committee to be appointed follow up the work which has been done so far, feeling confident that ultimately the common carriers of this country will be obliged to appreciate and recognize the equity of our position.

In addition to the work done by your Committee on Advertising Matter, we have kept the members of this association advised, as far as possible and practicable, of such changes as were made from time to time in various classifications, such as would interest the paint, oil and varnish manufacturers and jobbers.

In closing this report I wish to refer to the fact that the personal representation of your committee before the Southern and Western Classification Committees incurred a total expense of $45.57, being $8 for representation at the Southern Committee and $37.57 at the Western, in addition to which there will be the item for attendance before the Official Classification Committee, the amount of which cannot be stated at this time but report of which will be made later.

We have been informed that no provision is made by the association for expenses of this nature. While a certain amount of good in this direction can, of course, be done through correspondence, and at practically no expense, to accomplish results personal representation is, as stated before, absolutely necessary, before the different classification bodies when they meet.

In addition to the recommendation already made, your committee further takes the liberty of recommending that an appropriation be made for the purpose of looking after the interests of the members of this association in freight matters, and that the new committee be empowered to use all or such part of the funds so appropriated as may seem in their judgment advisable and necessary in carrying on the work successfully.

The President:—The report of the committee is referred to the convention by the Board of Control, with its approval of the recommendations it carries.

Mr. Rice:—The Committee on By-Laws considered something in connection with this, and I think possibly at this time they might present what they have.

The President:—That is quite true. Is the Committee on By-Laws represented?

Mr. Cheeseman:—Yes.

The President:—We will hear from you.

Mr. Cheeseman:—It was unanimously approved by the Board of Control, with a motion that the following addition be made to Article XVI. of the By-laws:—

"And the president shall be authorized to order the payment by the treasurer of any necessary bills of authorized committees, and such other expenses as postage, etc., not otherwise provided for."

I more that the resolution be adopted.

Motion seconded.

The President:—The purpose of that amendment is that your President shall have the authority to take money from the treasury, for the purpose stated by the report of the Committee on Transportation and Classification. We

The American Steel Lead Keg

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12 1-2
25
50
100 lb.
Sizes.
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Pure
or
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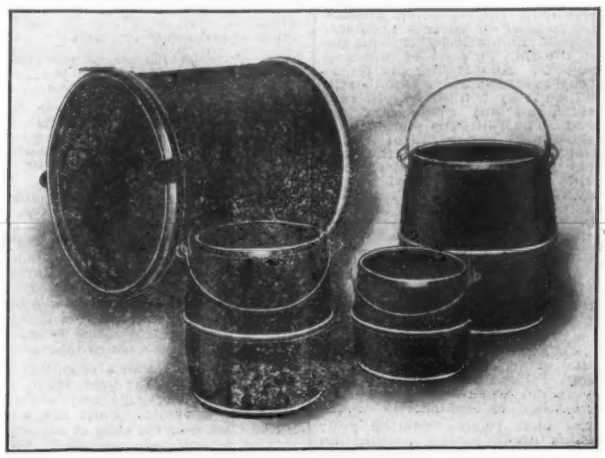
Leads.



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An ever-increasing business

is what the wide-awake merchant is striving for. Nowadays, no one is disposed to "leave well enough alone." The paint dealer that sold 200 gallons this season aims at 400 for next year, and he'll hit the mark if he has, or takes, and handles with ordinary business ability

A Sun-Proof Paint Agency

PATTON PAINT CO.
MILWAUKEE, WIS.

are hampered by our by-laws as they read today. About the only provision that is made for any expenses there, is for the traveling expenses of the officers; but it is very evident, after the experience of the past year of your President, that some provision should be made, and some liberty given to him, to furnish money for necessary expenses of that kind.

Mr. Peters:—I move that the report of the Committee on Transportation and Classification be accepted and placed on file, and the approval of the Board of Control adopted.

The President:—That carries with it its recommendation for an appropriation?

Mr. Peters:—I think that the change in the by-laws should be a separate motion, entirely.

The President:—Yes, sir; but I think it is proper to take that up before we take up the report.

Mr. Watson:—I move that we accept the amendment to the by-laws as offered by the Board of Control, and move its adoption.

The motion was duly seconded and carried.

The President:—The question now is on the report of the Committee on Transportation and Classification. What is the motion?

Mr. Peters:—That it be received and adopted, with the recommendations of the Board of Control.

The motion was duly seconded by Mr. Watson and carried.

The President:—The next report will be the report of the Committee on Postal Laws and Regulations.

Mr. L. K. Bell, Chairman of said committee, read its report, as follows:—

Report of Committee on Postal Laws and Regulations.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

It is to be regretted that the Chairman of this committee, Mr. Davis, has not as yet returned from his foreign trip, and that in his absence the duty falls upon us to present this report for your consideration.

While it is to be hoped that Mr. Davis is being benefited by his absence, the association as a whole will lose much of valuable information which he, with his long connection with the paint trade, and his familiarity with the changes in the Postal Laws which would best serve the interests represnted by this association, could have placed before you at this meeting. There is, therefore, very little to be said beyond emphasizing the recommendations which your previous committee have so fully presented in their reports.

The bill known as the Pope Bill introduced in the last session of Congress, but which failed of passage for want of time, will, we are assured, be re-introduced at the next meeting of Congress. This measure provides for the consolidation of third and fourth class mail matter under the title "Merchandise," with a weight limit of eleven pounds, and with the following specified rates:—

On parcels up to 3 ounces.....1c.
Over 3 ounces and up to 6 ounces..2c.
Over 6 ounces and up to 9 ounces..3c.
Over 9 ounces and up to 12 ounces..4c.
Over 12 ounces and up to 1 lb.....5c.

And for each additional pound or fraction thereof 2c., making the rate on an eleven pound parcel 25c.

In this connection, it may not be out of place to explain that the eleven pound limit, the reason for which we frequently hear questioned, was fixed as the equivalent of the five kilogram limit in most of the Europeans parcels' post regulations. In view of the interchange of postal matter between the countries in the International Postal Union, it is desirable that there should be as much uniformity as possible in the laws of the several countries relative to weights and rates on postal matter.

While there are many advantages to be derived from the passage of such a bill as the one referred to, it is well to bear in mind that it will meet opposition, especially from the various express companies, which seem to labor under the impression that high rate postage was inaugurated, and should be maintained, for their special benefit, and any effort on the part of a long suffering public to secure relief from these excessive charges will meet with the united opposition of not only these companies, but that of what are known as mail order houses, and certain country merchants who, in connection with some of these mail order houses, have been "let in on the ground floor" by discriminating express charges in their favor. It is, however, hoped that as soon as the country merchants realize that they are being discriminated against, for the benefit of these mail order houses, they will aid this association and similar organizations in their efforts to bring about the consolidation of third and fourth class matter.

While we would not wish to be understood as opposing any measure that had for its object the broadening out or extending the postal facilities of this country in a legitimate way, we do think a curtailment of the expense of establishing rural deliveries, could be made without in any way restricting the usefulness of this branch of the postal service. Petition after petition has been laid before Congress by merchants for the improvement of the postal facilities of New York and other large cities, the revenue from which reaches into the millions, but these petitions are always met with the old, old story that the deficiency arising from the enlargement of the rural delivery is so great that nothing can be done in the way of relief to the cities until the agricultural districts have been provided for, even though only a few hardy settlers have invaded some of the regions where rural routes are established. A colony of post boxes must be put up to let the wayfarer know with what solicitude the government undertakes the distribution of mail matter, which may not reach the intended recipients for weeks. We have recently learned that the Fourth Assistant Postmaster General has issued an order instructing all Rural Free Delivery carriers to have all mail boxes on their route numbered from No. 1 up. No. 1 being the box of the receiver of mail first reached by the Rural Free Delivery carrier, and all other boxes on his route numbered in regular sequence from No. 1 to the highest number necessary in order that every receiver of mail is numerically designated.

The Rural Free Delivery carriers are instructed to deliver mail of any nature to the box, provided of course, that the letter or package has on it a designated number. In this way the catalogue and other houses, some of an undesirable character, can reach every receiver of rural delivery mail in the United States without knowing his name.

Another burden upon the service which tends a perpetuation of the annual deficit of the Post Office Department is the low rate of postage at which second class matter is carried. This rate was originally established to gain the favor of the press, but the publishers of legitimate newspapers have learned that the abuse of the privilege accorded them has led to such an overwhelming number of publications issued for the advertisement of private enterprises, and illegitimately classed as entitled to entry at second class rates, that most of them would favor a reform in this classification, even though it increased their cost of delivery.

There is at present so wide a difference of opinion among all classes affected by the postal laws as to just what measures of reform would yield the greatest public benefit, that your committee does not feel justified in suggesting that any specific recommendations be made by this association.

We trust, however, that the interest of the association will in no way lag because of this omission on the part of your committee, but that it will aid in pushing forward the movement for obtaining cheaper and better postal regulations, if not from the next Congress, then in the near future.

The President:—The Board of Control presents this to the association without any recommendation.

Mr. Longstreet:—I move that the report be received and placed on file as matter of information.

The motion was seconded by Mr. Glidden, and duly carried.

The President:—The next report will be that of the Committee on Varnish.

Said report was read by the chairman of the committee, Mr. J. H. McNulty.

Report of Committee on Varnish.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

The past year has been one of great activity in the varnish trade. The large amount of building, the increased output of the various manufacturing institutions who use varnish in their work, large purchases by the railroads for the finishing of new and old equipment, together with the unusual prosperity of the country, has all tended to make the volume of business the largest ever known. While the output of the various factories has been entirely satisfactory, unfortunately, however, this increased business has not brought the amount of profit to the varnish manufacturer that could be reasonably expected.

As was set forth in the committee's report of last year and is a well known fact, the cost of nearly all of the raw material entering into the manufacture of varnish has increased from 50 to 100 per cent. In the last ten years, while the selling prices of varnish during this period have shown practically no advance and in some lines have reached a lower level. During the year 1905 nearly all of the raw materials entering into varnish manufacture have shown a still further advance, and in the case of turpentine for example; prices have very largely increased as compared with last year, while during a part of the season, owing to manipulation at Savannah, the price of turpentine reached a point that was almost prohibitive. Unfortunately, a substitute has not as yet been found for turpentine that will give anything like satisfactory results, and with nothing in the future that promises any relief from these excessively high costs, the manufacturer has reached a point where it would seem that an advance in prices and a shortening of terms is necessary if existing varnish standards are to be maintained.

For several years past your different committees have set forth in their reports the evils existing in the varnish trade and the great need of reforms, but up to the present time very little, if anything, has been accomplished in this direction. Two years ago the Varnish Manufacturers' Association was formed with a view to bringing about these reforms, and while a large number of the leading makers of the country joined the association and the first meetings were extremely harmonious and promised much, practically nothing has been accomplished. The long terms existing in the varnish trade have been condemned by all as a needless and unwise custom, but notwithstanding this and that nearly every one in the trade is desirous of a shortening of terms, it has been found impossible up to the present time to reach any agreement among a sufficiently large number of varnish manufacturers that would bring about this change. Unless something can be accomplished in this matter which is conceded to be the greatest evil in the varnish trade, and on which practically all other reforms hinge, little good will result from the Varnish Manufacturers' Association. This same question is also of great interest to the paint trade, as many sales are lost to the jobber who could otherwise secure the business but is obliged to refuse orders in many cases where parties have been in the habit of receiving regular varnish terms of four or six months which the jobber is not in a position to give. While this problem can only be solved by the Varnish Manufacturers' Association themselves through their organization, your committee nevertheless respectfully recommends that this association recognize the importance of this question by passing the following resolution:—

Resolved. That it is the sense of this association that the terms on varnish should be shortened to sixty days or 2 per cent. ten days, and we strongly recommend that Varnish Manufacturers' Association bring about this reform.

The President:—The report of the Committee on Varnish is referred to the convention without recommendation. The Board of Control did not deem it advisable to make any recommendation to this convention as to its action. What is your pleasure?

Mr. Peters:—I move that the report be received and the recommendations adopted, for the purpose of placing it before the meeting, simply.

The motion was seconded by Mr. Fisher.

Mr. McNulty:—The object of the resolution was to put the association on record. We have a great many varnish manufacturers; also a great many jobbers. It is not so much a question of terms to the jobber or manufacturer from the varnish manufacturer as it is to correct this evil which has existed for years.

Mr. Peters:—I have absolutely no interest in varnish, as a buyer or seller, but I am certainly interested in anything that tends toward reducing terms of credit as at present existing in the paint trade as a whole. The irregularity of terms from thirty days on oil up to an unlimited credit on varnish, I believe, and I don't know what the terms are on other goods, is of itself objectionable; and even the sixty-day limit is longer than experience has shown is a safe period. I judge that this report is a confession of the failure of the Varnish Manufacturers' Association, inasmuch as that association started out independently, after having received the encouragement of this association to organize and become a section of this organization. I am not at all sorry to believe that it has failed.

Mr. Arnold:—The Varnish Association is not a failure, and they are working on this very proposition, but it is such an enormous affair that it cannot be accomplished in a minute, and this resolution is simply to help the work along. It doesn't say that you are going to do anything. It simply recommends.

Mr. Rise:—I had thought that this was a matter the Varnish Association ought to settle for themselves.

The President:—They ask us for some assistance in the matter.

Mr. Vial:—I see no harm in this association putting itself on record as endorsing better business methods all along the line. (Applause.)

The President:—That is one of its objects.

Mr. Vial:—This has a tendency exactly in that direction, and this association should endorse it.

The report of the Committee on White Lead was then read by the chairman, Mr. J. M. Peters, as follows:

Report of Committee on White Lead.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

There has been but one change in the card price of white lead during the past year, and that occurred late in August, as a result of the marked advance in the cost of pig lead. The price of the latter commodity is arbitrarily fixed by the smelting interests, and it is contrary to their policy to make selling contracts except at prices current at the time of deliveries. Corroders, therefore, are without protection against an advance, beyond what is afforded by the lead which they carry, and for this reason they have shown less willingness to accept long time contracts for their own product, during the past year, than had previously been customary.

In view of the conditions existing in the markets for metallic lead throughout the world, it seems probable that corroders may be forced to still greater conservatism in this respect, and that the grinders and distributors, whose interests they have been able and willing to protect in the past, will be called upon to share with them, to a greater extent than heretofore, the uncertainties of values.

Your committee is disposed to reiterate the protest of some of its predecessors against the misleading use of the words "white lead" upon combinations in which the pigment is often the component of least weight. If the claims put forward by the manufacturers of competing pigments, and which they seek to substantiate by the publication of letters addressed to prominent grinders who are using their pigments in combination, are to be accepted as evidence of their relative merits, it should be to the advantage of the grinder to state frankly the composition of his product on his labels and in his literature.

Doubtless the action of the association at its convention last year in condemning the misuse of the word "pure," has had the effect of eliminating that word, in many instances, from brands covering combinations containing little or no white lead, but which still masquerade under that title, but consistency, as well as fairness, demands that no one pigment, whatever its merits or repute, should be required to stand as sponsor for combinations

Mr. Longstreth:—I do not feel that the association wishes to place itself on record as advocating the publishing of formulas on all labels. Of course that carries with it, if you happen to use it, any combination besides white lead.

The President:—The Board of Control referred this to the convention without any recommendation.

Mr. Cheeseman:—I move that it be placed on file, as a matter of information.

The motion was duly seconded and carried.

The report of the Committee on Window and Plate Glass, read by Mr. C. J. Caspar, the chairman, was as follows:

Report of Committee on Window and Plate Glass.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:

For various causes the window glass production for the fire of 1904-5 was undoubtedly the largest in the history of the industry. The stocks on hand at the beginning of the fire were less than for several years, and the general business of the country has been prosperous. Owing to the strike in Belgium, foreign production was materially curtailed and the importation less than for many years, the result being a general "cleaning out" of stocks in the hands of the manufacturers who were for the reasons assigned, able to dispose of all their glass, and the new fire will start with no stocks being carried over by manufacturers, all available glass being in the hands of the jobbers. Low and attractive prices being made late in the fire by a large manufacturing interest, encouraged speculative buying on certain sizes.

During the summer months, owing to united action on the part of jobbers, profits were more satisfactory. If the jobbers had been sufficiently well organized to have dealt only with the manufacturers who were not directly their competitors, a much better condition in the trade would have existed and a profitable condition could perhaps have been enjoyed during the entire fire, had the jobbers been organized and held in check disturbing and demoralizing manufacturing interests.

It is evident that when jobbers were organized and co-operated with local and sectional organizations, profits were made possible.

Many of the evils pointed out by your committee of 1904 increased rather than diminished during the past year, in so far as the manufacturers' influence on jobbers' profits are concerned and we would recommend the reperusal of your Plate and Window Glass Committee report of 1904.

With the knowledge that notwithstanding the demoralization during the past fire, largely attributed to the policy of certain manufacturers and that while jobbers' profits suffered, manufacturers made much larger profits than jobbers, or in other words the jobbers have paid the piper.

The manufacturers have agreed with workers upon a competitive sliding wage scale for the new fire, enabling them to cope with what last year was a menace to the jobbers and perhaps injured jobbers more than manufacturers (machine made glass) and with stocks low in hands of jobbers, none in hands of manufacturers, the start for 1905-1906 offers manufacturers and jobbers encouragement for profit and the fire should be more profitable to manufacturers than was last year's fire.

We therefore strongly recommend a permanent national organization of jobbers and a united effort to improve certain trade condtiions, the evils of which are evident to all concerned and the success of which has been tested in a former organization, banded together for buying and selling protection. When the jobbers regulate by a fair and equitable arrangement the manufacturing interests eliminating the same as competitors and preventing their wars waged against each other for which jobbers pay all damages, we will have served our interests well.

While the manufacturers of machine glass have undoubtedly made some progress during the past year, both in quality and quantity, it is also true that competing manufacturers by the old process, where they have had well situated tanks and competent management have been able to advantageously compete with the machine made products, and in most cases to make very satisfactory profits, with this fact recognized, a national organization of manufacturers and jobbers seems practical, hence possible.

The production of plate glass during the past year has been much larger than at any similar period, but owing to the entire absence of any trade arrangement among manufacturers and jobbers, comparatively small profits have been made in this branch of the business notwithstanding the unusually prosperous condition of the country at large; and while there have been various rumors of consolidation and agreement, nothing has been accomplished, unless manufacturers organize and endeavor to have an established market price. Jobbers are largely at the mercy of the conditions that otherwise exist.

In conclusion jobbers can only look to themselves and an organization to insure profits, and we urge organization on plate glass quite as strongly as we do on window glass, when manufacturing conditions make it practical.

The President:—This report is referred by the Board of Control to the convention, as a matter of information, without any recommendation.

Mr. Peters:—I would move that the report be accepted and adopted, with the recommendation coming from this association, that the jobbers and manufacturers of plate and window glass be requested to organize as a section of the National Paint, Oil and Varnish Association.

The President:—It appears to me that that is a very long headed, very statesmanlike and wise motion. I think, however, it is worthy of a second.

Mr. Longstreth:—I will second it.

The motion was duly carried.

The President:—We will now take up the very interesting report of the Committee on Naval Stores.

Report of Committee on Naval Stores.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

The situation in the naval stores industry for the past twelve months has been one of exceeding interest. The enormous advance in price of all products (including turpentine and rosin) has been a surprise to all of us. There have been various theories accounting for this out of proportioned advance and your committee has tried, as far as possible, to gather for you the most plausible reasons.

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For the last naval stores season, ending March 31, 1905, the Naval Stores Turpentine Operators' Protective Association, being greatly dissatisfied with the tactics employed by the large exporters and buyers of this product, went into open rebellion and after two or three well attended meetings of the representative producers decided on a minimum schedule of prices at which they would dispose of their production, namely, a price of 50 cents on spirits of turpentine and from $3.50 on water white rosin to $2 on the commoner grades. Owing to force of circumstances and the fact that this association had not been thoroughly organized when offerings of naval stores productions became plentiful and buyers' needs not pressing, the market fell below the figures set by this protective association of producers, and no financial provision having been made for sustaining the market by heavy purchases, the prices named were not upheld and the old line exporters and buyers treated the threats of this association as a joke. This year, however, under new leadership, a very much closer organization was effected and a producers' exporting and buying company incorporated (composed of the wealthiest representatives of this industry) and the tactics of the Producers' Association considerably amended. The majority of producers making up this aggregation refused to contract their receipts in the Jacksonville market (as they had for the two preceding years) and because of continued increase in these receipts at the ports of Jacksonville and Fernandina, the export buyers could not see their way clear to offer to buy as a whole this large percentage of the receipts. (The receipts of turpentine in Jacksonville and Fernadina alone for the last season having been in excess of the receipts of Savannah.) This caused a failure of negotiations between the large old line exporters and the producers in again renewing their arrangement for removing this large percentage of the receipts of turpentine from the market. The failure of the renewal of the old line exporters to purchase as a whole the receipts of turpentine at Jacksonville and Fernandina caused the producers to make good their threat of an independent export company to take care of these receipts and had the still further effect of deflecting a large proportion of receipts of naval stores which had previously been going into Jacksonville and Fernandina to the port of Savannah, which will to some extent account for the increased receipts at that particular port.

"Knowing ones" coincide in the opinion that there will be a decrease in the production this season, estimates varying all the way from 4 per cent. to 20 per cent. decrease over last year, but the best posted placing the shrinkage in the crop from possibly 12 per cent. to 15 per cent. A shrinkage of 12 per cent. on an average production of 600,000 barrels of turpentine would amount to 92,000 barrels shrinkage.

EXPORTS.

The government printed figures on the entire exports to foreign countries, as compared with the exports of same period for the preceding year, show for the twelve months ending June 30, 1905, a shrinkage of 26,159 casks of spirits of turpentine. It is generally conceded that very small stocks, if any, were carried over last season; you can therefore figure that if the domestic demand, on the present high plane of prices, continues relatively as good as it did the past year, that this will be another year of high prices. To this opinion, however, there are dissenting voices—those who claim that the Producers' Protective Association is banking up at interior points both turpentine and rosin and that its financial backing will be sufficient to carry them over to another season on the present high plane of prices, and that in the event these stocks are thrown on the market there may be a disastrous slump in prices. As a contrary argument producers claim that the cost of pine lands suitable for turpentining have more than quadrupled in the last few years; that labor is now more difficult to secure than ever before and that in addition to this climatic conditions have been against them.

The opinions of people who have heretofore been accepted as experts are so conflicting that your committee can but lay before you the arguments of each side, so that you can draw your own conclusion. Statistical figures are extremely misleading. Where the receipts at the Atlantic ports—Wilmington, Charleston and Savannah, used to be accepted as the gauge by which to measure the naval stores production, as explained above, the receipts at Jacksonville and Fernandina last year were in excess of the receipts at Savannah and no accurate figures are obtainable from these particular ports (and from the large receiving ports on the Gulf), causing a considerable amount of uncertainty as to what stocks of turpentine are being held back by the large independent producers, and corresponding difficulty in giving any accurate estimate of the general crop—hearsay evidence being largely accepted.

WOOD TURPENTINE.

The very high plane of prices at which spirits of turpentine have ruled has been an enormous stimulant to producers of wood turpentine. Your committee sent out a number of letters to ascertain, if possible, to what extent wood turpentine was being used as a substitute for pure spirits of turpentine. The result of these letters was extremely disappointing—the following being the nut shell conclusion:—That manufacturers successfully using wood spirits, if they had a "good thing" did not care to advertise the fact; that the manufacturers who had attempted to use and made a failure condemned enirely the use of wood spirits. Notwithstanding this your committee feels that the output of wood spirits in the last year has materially increased, being favored by the high existing prices on pure gum spirits of turpentine and they regretfully believe that the largest percentage of this wood spirits has been disposed of by unreliable dealers in the adulteration of the live wood product.

VALUE OF WOOD SPIRITS VS. PURE GUM SPIRITS.

The government, through the Department of Agriculture, Bureau of Chemistry, has sent out a very interesting circular letter, a copy of which we append to this report, as information for those desiring to follow this branch of the in-

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dustry and as results have not yet been announced we recommend to the attention of your succeeding Naval Stores Committee the very interesting report of the government that they may follow this investigation and further recommend that this association, as a trade body most interested in the result of this report, draw up resolutions commending the Honorable Secretary of the Department of Agriculture for the effort being made to enlighten the consumer and the trade, as to the relative merits of wood turpentine as against pure gum spirits of turpentine from the live tree.

Your committee further feels that trade bodies like this association should continue to agitate and draw attention to the successful work in the line of forestry being carried on by this progressive administration, through the Department of Agriculture. It is only through the education of the people through such government assistance that the existence of the magnificent bodies of virgin pine timber land in the Southern pine fields can be prolonged, and in this way perpetuate and save from entire destruction the naval stores industry. It may be years before this destruction is made complete, and attention may be called to the fact that the cry of "Wolf!" has been sounded for the past twelve or fifteen years; nevertheless, it is possible to perpetuate the existence of these magnificent bodies of pine, as has been proven by experiments in other countries, and to make them an everlasting source of income and wealth to this country and the present high prices (which are primarily due to the rapidly enhancing value of such tracts of timberland) should urge us, as the most interested body of tradespeople, to still further agitate and commend this branch of the government's work.

ROSIN.

The enormous advances registered in rosins have even outstripped the price on spirits of turpentine, though as far as your committee can learn from parties most interested in this industry, the consumers and dealers are accepting the situation—paying the price, and the volume of the business shows no apparent shrinkage. Rosin that was ranging about the one dollar mark three or four years ago is now selling at from $4 to $5 per barrel. Prices on spirits have advanced about 100 per cent. in the same time. If the cause of this advance is natural and the locations for turpentine farms hard to secure and are being exhausted, then the producer should not be criticized for getting all the money he can out of what he holds. If the cause is speculative, a very short time should demonstrate. But we point out to you that these advances have been going right straight along for the past several years, and that it is about time for such organizations as this to urge the government on in its forestry work and its protection of the young trees. A young seedling pine tree, if properly protected from the ravages of cattle and fire, for the first three or four years, is comparatively safe and in thirty years should be a producing orchard tree. But the turpentine farmer of the present day is hardly looking out for his grandchildren and the only way that we can see clear is to look to our "Uncle Sam" for the protection of this industry.

United States Department of Agriculture,
Bureau of Chemistry,
Washington, D. C., April 2, 1905.

Leather and Paper Laboratory.

Dear Sir:—We have begun an investigation of the chemical problems involved in the production of turpentine from cut wood. It is our aim not only to study the processes and yields, chemical and physical constants of the material, but also its industrial application as a substitute for turpentine obtained by distillation of the gum from the living tree.

We understand that there is considerable objection to the use of this material as a substitute for ordinary turpentine in the paint and varnish industries, and we desire to learn in what particular the wood turpentine is inferior for these purposes, from the manufacturer's, the painter's and the consumer's point of view.

Is its solvent power less than that of ordinary turpentine?

Does it dry as well as ordinary turpentine?

Does it make an inferior, more inflexible varnish which is more liable to check or to deteriorate than varnish made with ordinary turpentine?

Is it more difficult to work, or does it differ in any way in manipulation from ordinary turpentine?

Does the covering power of paint or varnish made with wood turpentine differ from that of these articles made with ordinary turpentine?

What objections are raised by painters?

What objections are raised by consumers?

By answering these questions you will not only confer a favor on us, but may assist in placing this material on a proper basis. Please address your reply to M. F. P. Veitch, Chief, Leather and Paper Laboratory, Bureau of Chemistry, Department of Agriculture, Washington, D. C.

Other pertinent information with regard to the recovery, uses and value of this material will be duly appreciated. Respectfully,

H. W. Wiley, Chief of Bureau.

Approved:—James Wilson, Secretary.

The President:—This report is presented to the convention by the Board of Control, as a matter of information.

Mr. Arnold:—It seems to me that the time has now arrived where this organization should take some action in regard to naval stores. What I might say would be perhaps things that you have heard before, but I think it would be well to give a slight outline of the condition as I see it, so as to come to some conclusion as to whether you all think that it is time to do something or not.

As I understand it, the Consolidated Naval Stores Company started in to buy all the land they could in the turpentine belt. The idea was that they would have the land to give to an operator, in case he wanted more to use; they then say to the operator, "We have plenty of land and plenty of money; come to us and we will let you have whatever land you want; if you haven't enough money to run your business we will furnish the capital." Then they are in a position to say to him, "You send your supplies to us for sale." They wouldn't give him this land unless he would agree to send the supplies to them. This followed along for quite a while, and they found, as I understand, that they were turning over the products to certain distributors, as they came in, upon an understanding that they be taken at the price on the Savannah market on the day they were delivered. This continued until the operators found that in order to increase the price they must have an organization by which they could curtail the product. So they got together and formed this Turpentine Operators' Association, and then, as I understand it, got up an agreement that they would not sell any turpentine at less than fifty cents. In order to maintain this agreement they found that they would have to take care of some of the weak ones, who could not afford to wait for the fifty cents; and then they arranged for a tank company where they could store the turpentine until such time as the market would arrive at a price where they could get out. In doing that they found that the better plan would be to divert a great deal of the turpentine from Savannah to Jacksonville and Fernandina, and in the last year or two the bulk of the goods for sale have been in Jacksonville instead of Savannah.

Now they come together and form the Naval Stores Export Company, and put in offices in Chicago, New York and different places to sell this accumulation.

When I was South two years ago I got copies of the agreements of the Turpentine Operators' Association, and I took them to Mr. Garfield, at Washington, and told him it seemed to me this was entirely against the law, that the operators could combine in several States to advance prices and curtail the product; and he asked me to leave all this matter with him and he would investigate it. I wrote him about it a month ago, and he said he had not had time to do anything with it at all, and suggested that I turn it over to the Attorney General.

It seemed to me that the thing to do was to bring it here and put it before the convention. If we have lined up against us the operators at the South, who are determined to advance prices, and do not make any bones about having their convention openly and signing agreements to curtail their output and advance the price, why should not we, the buyers, combine to see whether they are doing this in accordance with law?

They have had in years gone by an arrangement with different distributors, to take over this turpentine at the market. Well, when they would not agree to throw open Jacksonville and Fernandina, and let the product, which was coming in there so much over what Savannah was getting, the distributors refused to take it or make a contract with them to take it. That is what forced them into this selling or export company, as they call it, so that they could sell their own product.

It seems to me if we could appoint a committee with power and money sufficient to take this matter up at Washington and carry it along, and see whether we could not ourselves do something to stop this, that that would be better than just letting the thing drift, with the idea that they might overburden themselves with so much stuff and so much money to put out, that they couldn't do it.

Mr. Heckel:—Last year there was a resolution bearing on this subject introduced, to the effect that the Turpentine Operators' Association appears to be a combination in restraint of trade; and the matter was referred to the Legislative Committee, with instructions to take up the question with the proper government authorities. And it seems to me we should know whether anything has been done in the meanwhile on that resolution.

Mr. Peters:—I move that the report be referred back to the Board of Control, with the request that they present resolutions to this convention in accordance with the recommendations of the report as to wood spirits, and also as to the perpetuation of the forests. That has nothing to do with any legislative matters, but simply the report recommends that resolutions should be drawn up commending the Secretary of Agriculture, and also urging the Government Forestry Department to consider this matter. It seems to me that might properly be presented by the Board of Control, and I suggest that.

Mr. Watson:—I would second Mr. Peters' motion, and it seems to me that there should be some recognition of this letter at the end of the report. It doesn't say who it is to, but evidently emanates from the Department of Agriculture, and is asking for information. Certainly, if there is any information that this body can give to the Secretary of Agriculture, to whom we are going to present resolutions, we ought to give it to him, and this asks a great many questions, that we are all interested in; and they evidently are interested to know where we stand, and what our position is, and what the uses of wood turpentine are in our trade, as compared with the spirits of turpentine. This also should be answered, if it is pertinent, by this committee that may be appointed. Is this a communication directly to this committee?

Mr. Bent:—As I understand it, that is a circular letter that was sent out from the Department of Chemistry, broadcast, to all interested in the use of turpentine. It was simply a circular letter.

Mr. Watson:—Wouldn't it be well for this association to answer those questions?

Mr. Bent:—I think this association is more interested than anybody in the United States.

Mr. Watson:—And, coming from this association, it would probably have more weight than it would coming from any one individual.

Mr. Cheesman:—Mr. Heckel is mistaken. On page 88 of last year's report Mr. Gould presented the following resolution:—

"Whereas, current report would indicate that certain interests in the naval stores trade are acting as combinations in restraint of trade, contrary to federal law.

"Resolved, That the incoming Naval Stores Committee be instructed to take cognizance of the matter, and if the facts be as reported to call them to the attention of the Attorney General of the United States, or the proper authorities."

Mr. Heckel:—I accept the correction. But it is still more direct than I thought it was.

Mr. Watson:—I would move to amend Mr. Peter's motion by asking them to also frame answers to this letter from the Secretary of Agriculture, from this association, as answering these questions, or provide for the framing of them.

Mr. Rice:—Why not refer it to the same committee, instead of the Board of Control? They have the matter in hand so well, and the Board of Control would have to investigate.

The President:—I would say that the Board of Control has gone over this report very carefully, but if it is the wish of the convention that we should take it up again we will do so. Do you accept Mr. Watson's amendment as a part of your motion?

Mr. Peters:—I would be very glad to, if it is possible for the Board of Control to answer the questions.

The President:—He doesn't ask us to answer the questions.

Mr. Watson:—I think Mr. Rice's suggestion is a good one, that this resolution should be framed and these questions answered by this Committee on Naval Stores.

Mr. Peters:—I accept it.

Mr. Watson:—They are much more in touch with this matter, and can probably frame this resolution and the answers to these questions much more intelligently, and present it at a future meeting.

Mr. Rice:—I move to amend Mr. Peters' motion. Do you accept that?

Mr. Peters:—I do.

Mr. Bent:—I would like to still further amend Mr. Rice's motion. Your Committee on Naval Stores did send out quite a lot of letters, very similar to the letter that is issued by the Department of Agriculture, and the result was very disappointing. I should like to amend, to say that this matter be referred to a committee of manufacturers, who have some practical knowledge of the working of wood spirits, as against the pure gum article. Only a practical manufacturer can make an intelligent and useful report. I do not think any of your committee are practical manufacturers of this article, and I think they are the people that should settle the question.

The President:—The question before the house is that the report of the Committee upon Naval Stores be referred back to that committee, to formulate resolutions to this convention, for action.

Mr. Peters:—May I re-cast my motion? I think I can make it agree more thoroughly with the spirit manifested here—and that is, that it be referred to a special committee of five, covering all of the trades interested in spirits of turpentine and rosin. That committee could easily formulate the resolutions called for, and at the same time could probably arrive at answers to these questions. They are all practical questions, which I presume somebody, a dealer, and a grinder, possibly, and a varnish man, and a naval stores man, would be familiar with. I offer that merely as a suggestion, not to embarass the chair in any way.

Mr. Longstreth:—I would like to second that motion, if it is in order. I think that would cover the ground better.

Mr. Rice:—If Mr. Bent will accept that, I will.

Mr. Bent:—Yes, sir.

The President:—That seems to be agreeable to all, and there is no objection. We will accept the suggestion, that that be referred to a committee to be appointed by the Chair, to report at this convention, the committee to be made up of the different manufacturers who use the articles in question.

The motion as last stated by the President was then duly carried.

Mr. Clapp:—The Committee on Fire Insurance would like to make their report this afternoon, to as full a house as possible, if convenient.

The President:—On behalf of that committee I plead for a large audience. These reports have been written with a great deal of thought and care. The least we can do is to pay our respects to the committees by listening to them.

On motion by Mr. Watson, duly seconded and carried, the convention adjourned to 2 o'clock p. m.

SECOND SESSION.

Tuesday afternoon, October 10.

At 2 o'clock p. m., October 10, 1905, the convention was again called to order by President Field, and the report of the Committee on Paint Jobbers was read by the Secretary, as follows:

Report of Committee on Paint Jobbers.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

Your committee begs leave to report that trade conditions during the year just ended have been, generally speaking, very satisfactory. The many abuses which have obtained in the past are being gradually eliminated. The manufacturers are more and more recognizing the value of the jobber as a distributor of their products. Prices are maintained better than formerly and the pernicious custom formerly indulged in by some jobbers of making leaders of certain staples by selling them at cost to induce the sale of more profitable goods, is generally recognized as unwise.

Your committee urges most vehemently the cutting down of the long terms still being offered on opening stocks of paints and long future datings on brushes and other goods. We believe that the manufacturer of varnishes would increase his sales and decrease his selling expense were he to put varnish on a strict sixty-day basis. The margin allowed the jobber is not sufficiently large to warrant him in selling on six months' time, and his varnish business is now reduced to the small filling-in orders sent him.

The adulterated linseed oil evil has, we are glad to say, greatly abated and it is very much to the credit of the jobbers that almost uniformly they fought its sales notwithstanding it could have been handled at from three to five times the profit which the pure oil yielded.

Linseed oil has been more profitable than usual during the past season, by reason of the steady, gradual advance in the price during the active selling season; it is becoming more and more apparent to the jobber that he cannot sell a barrel of oil on a one-cent margin without loss, and some markets have settled down to a uniform advance of two cents per gallon over the carload price.

Turpentine has been a rather hazardous commodity to handle by reason of the wide and frequent fluctuations.

At last, after three years of unsatisfactory conditions, the jobber is having an improved window glass situation and those happening to have good stocks are marketing them at remunerative prices: it is hoped that even the little taste of good times will encourage a better feeling and bring the business back to a reasonable and profitable basis.

Your committee believes the outlook in nearly all localities is very favorable for continued good business, and thinks we may congratulate ourselves upon the long uninterrupted period of good times we have enjoyed.

The President:—That report is referred by the Board of Control as a matter of information, without any recommendation. What is your pleasure?

On motion, the report was received and placed on file.

The report of the Committee on Dry Colors was read by the Secretary, it being as follows:

Report of Committee on Dry Colors.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

It is difficult to formulate a report on dry colors that could improve on those made at the last two conventions, and as conditions have not materially changed since, it seems best that this report should, for the most part, indorse the leading points in those reports, both of which met with the approval of the conventions to which they were submitted.

Turning to conditions during the past year, we would report that the market in staple chemical colors to have been about the same as the year preceding. On the whole prices have remained about the same, although the cost of chrome yellow and all colors manufactured on a lead basis have advanced, owing to the high price of lead; while there has been a tendency towards a larger consumption of permanent Para, or what might be termed, concentrated red colors. Business in all grades of colors, anilines, blues, greens, reds, yellows, etc., has been good, but profits have been too close, not being commensurate with the cost of manufacture together with the amount of capital and risk involved. There is a strong feeling that prices of certain colors should be advanced to cover the increased cost of the raw materials entering into their manufacture, and it would seem necessary that concerted effort be taken to this end during the coming year.

OXIDES, VENETIAN AND INDIAN REDS.

Never before has the output of these colors by American manufacturers been so large, and this industry can be said to have attained an established position that promises in time there will be little call for important grades. The importation of venetian reds is nothing in comparison to what it was a decade ago. At the same time the importation of the other colors is as large as ever, and foreign manufacturers and importers are satisfied with their share of the business.

METALLIC OR IRON ORE PAINTS.

The output in this line has been satisfactory in volume, and prices have been uniform for mineral brown, while prices on metallic paints have been cut according to circumstances.

Among the grinders there has been more of a demand for the best grades of mineral brown, especially for grinding in the better grades of paints.

UMBERS AND SIENNAS.

We have not been able to secure much direct information on these, but believe conditions remain as formerly.

FRENCH OCHER.

Prices may not have reached the same

level as last year, but importations have been somewhat larger. In respect to this article as well as umbers and siennas, as the imported grades are used almost entirely for grinding, and do not compete with, or affect in any manner, the American grades or industries, and as the duty is a tax on the consumer, we therefore

Recommend that in the event of their being any tariff legislation during the session of Congress intervening before our next convention that the Tariff Committee and officers of this association be authorized to do everything in their power to have the duty of three-eighths of a cent per pound removed and these articles placed on the free list.

BARYTES.

The number of manufacturers is not as large as last year; several of the weaker or more irresponsible manufacturers having gone out of business willingly or otherwise. About four manufacturers, three in Missouri and one in New York supply the trade, and on the whole this industry is in a vastly more healthy condition than a year ago, but prices have been too low and of necessity an advance must be expected.

BRONZE POWDER.

There has been a tendency for the better in this line and for the first time an ample and up-to-date plant is being erected by a New York concern. Prices for lower grades have been cut from time to time, but the best grades are held at firm prices.

CONCLUSION.

A mere review of the conditions of the dry color business for the past year cannot express actual conditions of the trade, and it is a question if it can be of any considerable benefit to our members, and this we think applies to nearly all reports of trade committees. We believe, with the last committee, that the most direct benefit to be derived by those interested in these industries would be to meet together with your committee at some period during the convention, and as this was evidently in the minds of the founders of the association, and has prevailed to ome extent at times, we beg to call your atention to the provisions of our by-laws as found in article XV., which reads, "Permanent committees shall have power to call together the different interests they represent in order to formulate recommendations, consider complaints or suggestions and present them in such form as may seem best at any meeting of the association, and then recommendations shall take the usual course." Believing the usefulness of the association would be enhanced by a closer observance of this section we

Recommend that the next Committee on Dry Colors should provide for such a meeting.

The President:—The report has two recommendations. The first one is that, "In the event of there being any tariff legislation during the session of Congress intervening before our next convention, that the Tariff Committee and officers of this association be authorized to do every thing in their power to have the duty of ⅜ of a cent per pound removed, and these articles placed on the free list." The Board of Control felt that it was inexpedient to take the action that was requested. We will vote on that recommendation first.

Mr. Sulzenberger:—I move yau that the recommendation be non-concurred in.

(Motion seconded.)

The President:—This opens up a wide field, if you want to go into it. You have heard the motion.

A standing vote being taken, the motion was lost.

The President:—A motion will be in order now to accept the recommendation of the committee.

Mr. Rice:—I move, sir, that we accept the recommendation.

The motion was seconded by Mr Evans.

The President:—It is moved and seconded that the recommendation of the committee be endorsed by this association.

Mr. Sulzberger:—Your Board of Control, in passing over this recommendation of the Committee on Dry Colors while they did not object to the sense of the resolution, inasmuch as the removing of the tariff on the articles in question might be advantageous, deemed it unwise for this association to begin, and to take any one article, and recommend that the tariff be reduced, or increased, because the moment that we start on one thing we will get into deep water, and there is no telling where we would end. This was the reason that your Board of Control thought it proper to vote this down, and this was the reason for my original motion, which was lost. It is not a question of not being in sympathy with this one article, but I believe it has been the policy of this association not to meddle with the tariff, and for that reason I should certainly oppose this motion.

Mr. Somers:—I am very much impressed with what Mr. Sulzberger has said, and I believe it a very serious mistake for this association, representing as it does so many varied interests and industries in the paint business, to place themselves on record on either side of what is perhaps one of the most important political questions before the people of this country to-day. It is a grave question in my mind if we might not run up against a stone wall, if a committee from this association should appear before any Senate committee recommending that any one particular article used in the paint industry be placed upon the free list, to the exclusion of everything else. The very fact that the committee has reported that nearly all of the ochers, umbers and siennas used in the paint trade are imported, except those of the cheaper grades, manufactured in this country shows that no very great harm is being done by permitting conditions to remain as they are. If it were a question of competition between domestic and foreign made goods that would be another matter, but if the committee's investigations have drawn these conclusions correctly it would seem to indicate that there is no benefit to be derived by tinkering with the tariff on these particular articles.

It is a matter that we might be inclined to vote upon in the affirmative, just because it recommends a change toward cheapening an article that we use; but there are two sides to it. It involves a very broad discussion of tariff legislation, and I do not know that we as a body are prepared to go deeply into that matter. The thing is not to be disposed of by a simple aye and no vote, unless the entire field is threshed over, and that would give this association as much work as it could do in a year, if it met every day in the year. We always know just what it means to get into tariff talk, and we know how little is accomplished, no matter how much time we give to the discussion of this subject; so I believe that this association would do a very unwise thing, and it would be detrimental to our interests, and I have no personal interest in it, although I handle these things; I am perfectly willing to pay the tariff, because the customer pays the tariff, and he doesn't pay very much, after all, and it makes very little difference whether ochers, umbers and siennas cost him three-eighths of a cent more or less. I think we would be doing an unwise thing, and ignoring other interests that will be involved.

The President:—We are voting now on whether the recommendation of the committee shall be approved by this association.

Mr. Longstreth: I move that we reconsider the first vote.

The motion was seconded and carried

The President:—Now the question before the house is the recommendation of the Board of Control, that it is inexpedient that this association endorse the recommendation of the committee. The secretary calls my attention to the exact wording of the recommendation of the Board of Control, which was that it was inexpedient to take up the matter at this time. We are now voting upon the recommendation of the Board of Control, that this convention does not indorse the recommendation of the committee.

The recommendation of the Board of Control was then approved.

The President:—The next recommendation is, "We recommend that the next Committee on Dry Colors should provide for such a meeting." The Board of Control offers this with the recommendation that the convention indorse it.

Mr. Rice:—I move that we approve the Board of Control's action.

The motion was duly seconded and carried.

The President:—According to the by-laws, a nominating committee is named by the president at the second session on the first day. I would therefore announce the following nominating committee:—

C. J. Caspar, of Pittsburgh, chairman.
J. H. McNulty, Buffalo.
Edward Barron, Cincinnati.
John Schroeder, Detroit.
E. T. Longstreth, Philadelphia.
J. M. Peters, of New York.
J. William Rice, of Providence.

The President:—We will now take up the very interesting report of the Committee on Fire Insurance. I am very glad that Mr. Clap has so large an audience. His report is certainly worthy of it.

Mr. Clapp:—The committee asks your indulgence and patience with this report, from the fact that it contains a good deal of statistical information, which is not always interesting.

The following report of the committee was then read by Mr. Clapp:—

Mr. Clapp:—Since we have formulated this report some other suggestions and information have come to us that I would like to read, very short, in connection with this, before you take it up, if satisfactory.

The President:—We would be very happy to have you. Do they carry any recommendations?

Mr. Clapp:—They do not. This has not been before the board, but is simply additional information backing up the committee's report.

The President:—We would be glad to hear it.

Mr. Clapp:—Since making the report I will state that this has not been before the Board of Control. The president knows how we were hurried and knows the conditions under which we were placed.

The President:—Yes, sir.

Mr. Clapp:—And we could not get everything in in time to go before the board.

The additional report was then read by Mr. Clapp, as follows:—

Supplementary Insurance Report.

There are some thoughts that have occurred to us that we desire to express, along the same line. We believe that we should call attention to the report of the New York Club, which was made soon after the meeting of a year ago, and along similar lines. Similar questions were asked. And we find that the Fire Insurance Committee of the New York Club made a report upon twenty plants. Ten of them were sprinkled, ten of them not sprinkled. This report extended over a period of ten years, showing that they had paid in premiums $1,383,218, and that they had received for losses sustained $882,185, showing a gross profit to the insurance companies, upon twenty plants alone, of $501,033. We should ask ourselves this question: Are we willing to continue to pay old line companies 40 per cent. for doing business, when it is clearly shown that it can be done for at least one-fourth the money?

We have made reference to the meeting in New York of the Furniture Association of America. They appointed a fire insurance committee. They show a report of 421 manufacturing plants. They paid during a specified time $2,161,031 premiums, and they received for losses $275,422, showing that they had paid for premiums in excess of losses $1,885,608. This showing has convinced the furniture manufacturers of this country that they should organize a company, and they are simply discussing now whether it shall be a mutual or a stock company, the stock to be taken by the various members of their association.

At the National Association of Manufacturers, held at Atlanta, they called upon Hon. Edward Atkinson to read a paper upon this subject. He has been for twenty-six years president of one of the largest of the factory mutual insurance companies of New England. He states that the company of which he is president has carried during the past year $206,000,000 of insurance. They have paid 340 losses, amounting to only $34,000. This would be at a cost of 1.65 cents upon each $100 of insurance. He emphatically states that this low rate comes largely—and this is a point that I desire to urge upon every one of our members—from cleanliness and the observance of the necessary safeguards. We can insure ourselves, to a large extent, if we are thorough and clean. I believe the time has come for a general house cleaning, to see if we cannot thereby prevent many of the losses that we are sustaining.

Mr. Atkinson states that their expenses are less than 4 cents upon $100 per year. It appears to me that this class of arguments should arouse us to a thorough investigation of this subject. I have taken the precaution to tabulate the various reports that have been sent in, not only this year, but last year, and I want to assure each member of this association that sent us in his report, that his name and his business are as secure and safe with us as though they were locked in his own vault. We have there the names of the various firms, and how they answered the questions, and, Mr. President, while I will preserve this, let me say that your next committee that you appoint are welcome to these records, which they will find will contain a great deal of valuable information.

The 94 members that reported are carrying $21,930,013 of insurance. You are paying an average rate of 1.548 cents. You paid in premiums during the period $1,698,187. Your losses were $487,735, showing that you paid during the past five years to the underwriter $1,210,452 more than your losses were. This is from your own reports. Now, admit that one-third reported; then the manufacturing plants of this association paid out during the five years $3,631,356 in excess of your losses.

I have received a great deal of help from the second member of this committee, Mr. Evans. Unfortunately the third member who appeared before you last year, was in the employ of the American Linseed Company, and he went out of the employ of that company and hence did not feel like acting upon this committee, as he was no longer, nor his firm, a member of the association. Mr. Evans has had an expert underwriter prepare a plan on the lines which our report indicates, and I would like to have him read that.

Mr. Evans:—In connection with the plan which the insurance committee is presenting for your consideration, I want to say that all of the possible economies that are intended are based upon very much more frequent and more expert inspection than you receive at the hands of the board companies.

At Mr. Clapp's request I have endeavored to get hold of a concrete plan, which might be proposed to the members here, and to that end I consulted a gentleman in New York, who has been in this line of insurance for a great many years, and who therefore speaks with authority, and he addresses me as follows:—

143 West 11th St., New York City.
October 2, 1905.

S. M. Evans, Esq., Member of Insurance Committee of National Paint, Oil and Varnish Association.

Dear Sir:—In response to your request, I beg to submit the following plan of inter-insurance, which would enable concerns engaged in the paint business and other branches of trade, manufacturing and non-manufacturing, and whether conducted in buildings equipped or not equipped with automatic sprinklers, to save an important part of the expense to which they are now subjected for insurance against loss or damage by fire to their properties. The plan here stated is based upon experience in this particular method of fire insurance, as applied to mercantile and manufacturing risks.

As an illustration, 101 concerns, each of whom own or occupy a risk acceptable from the physical standpoint, may insure each other for $1,000 each. This would put into the possession of each of the 101 a policy for $100,000, signed by each of the others for $1,000 apiece. No member would underwrite the policy on his own risk. Supposing that each of the 101 concerns paid for his policy of $1,000, a rate of premium of $1, each of the 101 would pay a premium of $1,000 per year. This would give the organization an aggregate premium income of $101,000 per year. Out of this a fixed percentage for the expenses of conducting the business, covering usual office expenses and the cost of making inspections, would be deducted. Taking out 15 per cent. for this purpose, or $15,150, from the gross premium income of $101,000, would leave, in the absence of losses, a profit of $85,850, or 85 per cent. of the aggregate premiums paid by the 101 members. Each of the 101 thus receives to his credit as an offset to the premium paid by him of $1,000, the sum of $850, reducing the cost of $100,000 on his own risk from $1,000 to $150, or 15 cents as against $1 of premium paid.

A principle well recognized and which is based on the results of the business since sprinklers came into use, is that risks protected throughout by an approved system of automatic sprinklers seldom suffer serious loss except by a fire communicating from another risk or in case of a conflagration. On such risks the fire losses are naturally less than the loss on properties not so protected. It is therefore proper that a concern whose properties are equipped with sprinklers should, if preferred, insure only each other and not insure concerns whose properties are not so safeguarded.

The subscribers in an organization insuring only carefully selected sprinklered properties, under conservative management, may fairly look for a saving of about 75 per cent. of the premium income of the organization. Risks not equipped with automatic sprinklers may also be profitably insured under this method, provided a wise conservatism is exercised as regards the properties accepted. In this class a saving may be expected of 40 per cent. of the insurance cost, when compared with stock company insurance.

As to both sprinklered and unsprinklered properties, however, it is true that a profit may not be shown every year, and the above estimates of saving are based upon the probable experience of several years taken together, it being understood that should the losses in any one year be large, they would be made good by the profits of preceding and succeeding years, in other words, no such association can save all the premiums all the time.

The subscribers insuring only sprinklered risks may be designated as group one and those insuring unsprinklered properties or both sprinklered and unsprinklered risks may be known as group two.

In group one, each subscriber may write $1,000, $2,000 or $4,000 on each of the properties of the other subscribers in that group, and in this group no deposit of cash need be required in order to unite with the group, for the reason that the premium income of the organization may confidently be expected to much more than meet expenses and losses without recourse to the members for funds.

In group two, each subscriber may write not to exceed either $1,000 or $2,000 on each of the properties of the other subscriber in that group. In group two, however, as there is more probability of loss being incurred than in group one, it is provided that each subscriber should make a deposit of cash equal to the amount which he is willing to underwrite on any one risk, that is, for $1,000 or $2,000, the equivalent of 6 per cent. interest to be paid in December of each year on this deposit, called the emergency fund, from the premium earnings to the credit of the subscriber.

Concerns eligible may join either or both of these groups.

The subscribers in each group should elect annually from their own number an advisory committee of five to pass upon applications for subscribership and insurances, and act also as trustees of subscribers' moneys and securities, the committeemen to receive fees in recognition of their services. Subject to the supervision and control of the advisory committee and by the authority conferred by power of attorney, the manager enrolls new subscribers, inspects properties of subscribers, issues policies, settles losses and in general attends to the conduct and operation of the office.

Each subscriber's underwriting on any one risk, as a matter of practice, should be confined to 85 per cent. of the amount which he has authorized written per risk, unless the remainder or part of it is required to provide for the reinsurance of other subscribers, no subscriber to be responsible as an underwriter on any block or square of buildings for more than the amount which the attorney and manager is authorized to write for him upon any one risk. The subscribers' underwriting in any one city should be so distributed as to render improbable the occurring of a loss on more than one risk in the same fire.

The rates of premium to be paid by subscribers should be such as are deemed proper by the advisory committee and the attorney and manager. Subscribers should be informed by monthly report of the names and addresses of all participants, and of other current data respecting the office. Each subscriber should receive a statement of his account at the end of the calendar year, the books of account being regularly audited by a public accountant employed by the advisory committee.

Whenever a subscriber's account at the and of the calendar year, after providing for any losses or other charges, shows a credit balance in excess of double the amount which his power of attorney authorizes written on any one risk, such excess may be withdrawn in cash, or used in payment of premiums for insurances in his own property. If the amount to the subscriber's credit in the hands of the advisory committee or the attorney and manager should become insufficient for the payment of losses or expenses or shall become smaller than his emergency fund, in cases in which an emergency fund is deposited, it would become the subscriber's duty to make good the deficiency.

It should be provided that a subscriber may direct at any time by giving the attorney and manager one day's notice, that no further underwriting be done in his name, and in case of retirement of a subscriber through withdrawal, death or disqualification in the judgment of the advisory committee, all underwritings in his name on other subscribers' risks should be promptly cancelled or reinsured, and his acount closed and liquidated.

It should be kept in mind by the members of the association that a system of inter-insurance can only be made successful and profitable by the uniting in the proposed organization of a considerable number of members at the time of the inauguration of the business in order to provide a volume of premium income sufficient to meet whatever losses may be incurred. Very truly yours,

.....

Dictated.

The President:—You have heard the report of the committee. The Board of control sends this report to the con-

vention for its consideration, without any recommendations. It is now before you for discussion. In connection with this report we will read a resoluesarr rrrmfw bfw wlu fwypfwypfwyb tion from the New York Club.

The Secretary then read the following resolution, from the New York Club:—

"Whereas, the work of the association's Committtee on Fire Insurance has proven that the risks of our members are not only self-supporting, but also a source of excesive profits to the underwriter. and

"Whereas, the work of the committee of the New York Club amply verified the conclusions of the National Committee. be it

"Resolved, That it is the sense of this association that some form of insurance should be devised for our industries wherby all conservative economies in insurance premiums may be saved to our members. And be it

"Resolved, That the association strongly urges the manufacturing members to carefully consider the detailed plans which the Insurance Committee has to offer."

The President:—That is offered by the Board of Control, also, without any recommendation.

Mr. Peters:—I move that the report of the committee be received and placed on file, and I would like to ask Mr. Clapp if he wants the supplemental report which he made to become part of the original report.

Mr. Clapp:—I do not care for that. The meat of the whole business is in the first report.

The President:—I will call the gentleman's attention to the fact that there is a recommendation in the report.

Mr. Evans:—The last sentence in the report. The committee realized the fact that this association as a body could not launch itself on any such business scheme, from the varied nature of the membership. It therefore embodied its recommendation in the closing sentence, "Your committee strongly recommends that it be adopteil by the members of this association." It has to be a personal affair with each member. with each house.

Mr. Rice:—How do you propose to create the organization which is to do this?

Mr. Evans:—To do that it will be necessary to take advantage of the services of some man who is prepared and equipped to carry out such an undertaking. The gentleman who gave us the benefit of his experience in the letter which I have just read, and who is a friend of mine, has very kindly offered to come to New York or to Chicago, and has done so, to offer his services to the members, without any expense to them, to take this matter up, and if a sufficient number of the members indicate their willingness to consider the plan, he is in the hotel, and will be very glad to consider it with him, with the manufacturing members in a body, or with them singly.

The President:—So far as this convention is concerned, what does the Committee desire?

Mr. Evans:—It simply desires that the recommendation be endorsed by the members of the association. That is all it can ask for.

Mr. Peters:—I move that the report be received and placed on file, and that the association approve the sentiments of the committee.

The motion was duly seconded and carried.

The President:—The Chair will appoint the following committee, to whom was referred the report of the Committee on Naval Stores:—

N. B. Arnold, of New York, chairman.
Day, of Cleveland.
Thomas, of Chicago.
Morton, of Boston.
Bray, of St. Louis.

The report of the Committee on Linseed Oil was then read by the Secretary.

Report of Committee on Linseed Oil.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

A report of a linseed oil committee must necessarily be almost entirely retrospective, and any attempt to make deductions therefrom for the future would be treading upon the confines of necromancy.

The crushers' year begins and ends on August 1. The intervening twelve months tells the story around which is centered the experience of the oil, varnish, paint, white lead, lineoleum and patent leather industries. An appeal for information to the leading lights in these different branches elicits the welcome intelligence of an augmented business and generally increased prosperity.

Looking backward does not always reveal the ghosts of unpleasant memories; on the contrary, in this instance the linseed oil interests would welcome a duplication of recent conditions. Every bushel of seed represented a profit, and the acquirement of every galion of oil meant pecuniary gain; in fact it may well be said that the course of the linseed oil market has acted as a prop to its allied industries.

The most conspicuous feature of the oil market since our last annual meeting has been its persistent consistency; always stable, with healthy and conservative advances, the lack of basic confidence in the diminutive crop of flax alone preventing even more advantageous operations.

To those who like to delve in the whirligig of statistics we furnish the following comparative prices of flaxseed and oil for the past three years. Those wishing similar statistics for a longer period of years can obtain them by applying to the chairman of the committee:—

RANGE OF PRICES FOR FLAXSEED.
DULUTH MARKET.

	1902 High.	1902 Low.	1903 High.	1903 Low.	1904 High.	1904 Low.
Aug.....	1.48	1.32½	1.01¼	.96¾	1.26¾	1.23½
Sept.....	1.47	1.24½	1.09	.99	1.27¾	1.16¼
Oct.....	1.27¾	1.15¼	1.03½	.92	1.17	1.13½
Nov.....	1.19¾	1.15½	1.00	.93	1.18¾	1.14
Dec.....	1.21½	1.16¼	.98¾	.95½	1.25¾	1.18

	1903 High.	1903 Low.	1904 High.	1904 Low.	1905 High.	1905 Low.
Jan.....	1.20	1.14½	1.17	1.00¼	1.24½	1.23
Feb.....	1.16¼	1.11¼	1.15¾	1.13½	1.38	1.24½
March...	1.13¾	1.07¾	1.15¾	1.14	1.40¾	1.35
April....	1.11	1.09	1.15½	1.05½	1.42	1.39
May.....	1.16	1.11½	1.08	1.05¾	1.52	1.40
June.....	1.13	.99½	1.09¾	1.07¼	1.50	1.46
July.....	.99½	.95	1.24	1.09¼	1.48	1.47

COMPARATIVE OIL PRICES.

	1902 High.	1902 Low.	1903 High.	1903 Low.	1904 High.	1904 Low.
Aug.....	.64	.44	.33	.32	.42	.42
Sept.....	.57	.42	.37	.32	.42	.36
Oct.....	.49	.39	.35	.32	.37	.36
Nov.....	.46	.40	.33	.33	.37	.37
Dec.....	.44	.41	.33	.33	.40	.37

	1903 High.	1903 Low.	1904 High.	1904 Low.	1905 High.	1905 Low.
Jan.....	.44	.42	.39	.35	.40	.40
Feb.....	.43	.41	.39	.39	.43	.40
March...	.42	.39	.39	.36	.43	.43
April....	.41	.40	.37	.36	.44	.43
May.....	.41	.40	.36	.36	.46	.44
June.....	.41	.36	.36	.36	.46	.46
July.....	.36	.32	.42	.36	.49	.46

To obtain a clearer conception of the relative conditions it might be pointed out that while the flax crop season begins and ends on August 1, the active movement of the new seed, in ordinary years, does not commence before September 10. A comparison of conditions on the latter date shows that the surplus of seed accumulated from the crop of 1903 has been drawn upon to the extent of about 5,000,000 bushels. This is represented by the decreased amount of seed in sight and in the hands of the crushers on the 1st day of September, 1905.

Since our last meeting the crushing capacity of the United States was increased 36 presses, or 1,500,000 bushels per annum, the total capacity of the country now being largely in excess of its ability to furnish seed to operate it. If the crop of the past year had been equally distributed between all the active mills, the operation of each plant would have been less than six months. Partially operated mills mean an increased working cost. It is generally conceded that the crop of the present year is from 15 to 25 per cent. greater than last, yet with the most roseate estimate of the crop it will not keep America's mills in operation seven months. Whether this means that there will be another scramble for seed at advanced prices before the crop is marketed or not will depend on the pulse of general business conditions, and at this writing the industrial sky is clear in all directions.

The building and trade industry outlook is exceptionally good and a much greater business than last year is already assured. With one exception the crushers enter this year with tanks and elevators bare of oil and seed, reminding us of the old days when the average crop was just sufficient to go around, with nothing left over.

ADULTERATED OIL.

On this subject much progress has been made during the past twelve months, and all advocates of fair play and integrity in business are indebted to Mr. Field, the president of this association, and to its members, for their activity in exposing the pernicious practices of the "doper" of pure linseed oil. Work of this character, nowever, cannot all be carried on by moral suasion, but should be supported by a stringent law in every State, a law framed specifically in the interest of pure linseed oil, and we suggest that local clubs take up this question with their State legislatures, and keep at it until every State has a pure oil law on its statutes. Pennsylvania saw the necessity for this action, and the Philadelphia club secured an enactment on January 25, 1901, which has accomplished much good. A few other States have fallen in line, but we should have them all.

The President:—The Board of Control, notwithstanding the sense of modesty of the president, recommends the adoption of this report, and I am obliged to present it to you for your action.

Mr. Rice:—I move that it be adopted.

The motion was duly seconded and carried.

The President:—We will now take up the report of the Legislative Committee, and I believe that will afford you plenty of interest, as there are a number of recommendations.

H. R. Hamilton, of the Legislative Committee, read the following report:

Report of the Legislative Committee.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

Perhaps the most important action for our consideration is to decide some effective remedy for the abuses in connection with the railway transportation. The position of our Association on this matter has been consistent and persistent. Last year the Quarles-Cooper bill then before Congress, was approved by our association, and "Authority to the incoming committee to favor its passage" was adopted, and to this end three delegates were sent to the Interstate Commerce Law Convention held in St. Louis last October when the bill was approved by delegates from nearly five hundred organizations of national, State and local character. During the year the Louisville Club adopted resolutions favoring the passage of the Esch-Townsend bill, which took the place of the Quarles-Cooper bill, and as this bill had the indorsement of President Roosevelt the constituent clubs were asked to indorse it, but few if any clubs, are reported as having taken action. Your chairman wrote his fellow members on this committee as to their opinion of this bill, but only four replies all varying in opinion were received. Some of the principal evils which exist are: unjust discrimination between localities, individuals and commodities; unjust classification of commodities; arbitrary enforcement of storage car service and demurrage rules; unnecessary delay in the settlement of claims for overcharge, storage, demurrage, loss or damage; an inequitable conditions governing the conditions of transportation of freight. These conditions are so well known that we believe our members from their own experience have formed definite conclusions thereon, therefore it is necessary to enter into this subject at any length, and we feel that it is only necessary to say that since the recent hearing before the Senate committee, the railway interest has been assiduously endeavoring to produce the impression on the minds of members of Congress and the public in general, that interest in the legislation has abated, and "representatives of various railways have recently communicated with officers of some of the organizations associated in the movement to secure the desired legislation, with a view to influencing them to withdraw their support. The committee is not apprehensive that this will have much effect, but desires to impress upon our members the necessity of standing solid together in the effort, the object of which appears now to be near its accomplishment, a strong indication of which is the desperate effort being put forth by the railway interest in opposition to it." In order that some action may be taken by our association at this time, your committee therefore

Recommend that this association indorse the position of President Roosevelt as expressed by him from time to time, and especially as outlined in his last annual message to Congress, and that it expresses the views of our association on the subject, as follows:—

"The Interstate Commerce Commission should be vested with power, where a given rate has been challenged, and after full hearing found to be unreasonable, to decide, subject to judicial review, what shall be a reasonable rate to take its place; the ruling of the commission to take effect immediately and to obtain unless and until it is reversed by the Court of Review," and we

Recommend that if any bill embodying these features and indorsed by President Roosevelt shall be offered at the coming session of Congress, that the officers of this association and the Legislative Committee be instructed to do everything in their power towards the adoption of such bill.

BULK SALES LAW.

Action was taken upon these last year, and as is known, refers to laws preventing the sales of stock in bulk or otherwise by dishonest debtors, thus defrauding legitimate creditors. Last year 22 States and Territories were reported as having passed laws to this effect. Since that time bills were introduced in Florida, Indiana, Illinois, Kansas, Maine, Michigan, Missouri, New Hampshire, New Jersey, North Carolina, North Dakota, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont and West Virginia, and of these were successful in Illinois, Maine and Pennsylvania. The New York club made some efforts toward getting a law passed in New Jersey, but were defeated by the party bosses. In the interest of uniform laws your committee

Recommend that this association indorse the law prepared by the National Association of Credit Men as reported by our Legislative Committee last year, and adopted by the convention at that time as found on page 24, pamphlet of its proceedings.

Referring to the laws preventing the carrying on of business under an assumed name, your committee

Recommend that our association again indorse the bill reported last year by your committee as found on page 26 of the pamphlet of proceedings of the last convention.

LOVERING DRAWBACK BILL.

Your committee did not memorialize Congress on this bill as recommended in the last report of your committee, and as adopted by the last convention, owing to the fact that the bill was withdrawn by its friends for further amendment. We, however,

Recommend that the principles recognized in this bill are indorsed, and that the next Legislative Committee be authorized to memorialize Congress on behalf of the passage of such a bill when finally prepared by its friends.

H. R. BILL 7874.

This bill known as the Pope-Henry bill for the consolidation of third and fourth class matter, under the title of merchandise, was presented at the last Congress but so far as is known did not pass. As our association has previously indorsed this bill, and believing it to be in the interest of its members, we therefore

Recommend the passage of said bill if again offered at the next session of Congress.

LAWS AGAINST ADULTERATION OF TURPENTINE.

At the 16th annual convention of our association held in St. Louis, the delegates of the New York club recommended the adoption of a bill forbidding the adulteration of turpentine, and at our last convention such legislation was again indorsed. In this connection your committee report that laws have been passed by the States of Florida and Georgia to prevent and prohibit the adulteration of spirits of turpentine and naval stores. The laws in these States were particularly enacted to prevent adulteration of spirits in the primary markets, as it appears it had become a practice to adulterate the product even before its arrival in the primary market. As it would also be desirable to have further protection to consumers and get a pure article, it would be advisable to have similar laws enacted in all States. Your committee therefore

Recommend that the local clubs use their influence toward having such laws passed by the legislatures in their respective States, and that the secretary of the association secure copies of laws that have already been adopted in the States mentioned, and forward them to the constituent clubs in order that they may have a type for their information and guidance.

OBNOXIOUS PAINT LAWS.

Our members are doubtless conversant with the fact that so-called "pure paint" laws have been passed in some States, notably in North Dakota and Michigan. These laws make it a misdemeanor, punishable by fine or imprisonment, to manufacture or expose for sale or sell within the State any mixed paint or compound branded or marked as pure or strictly pure which contains any ingredients other than pure linseed oil, pure carbonate of lead, oxide of zinc, turpentine, Japan dryer and pure colors, unless the same be labeled showing the quantity or amount of each and every ingredient used therein and not specified above, and, believing that any laws going beyond merely protecting the consumer against deliberate fraud and misrepresentations are inimical to the paint, oil and varnish industries of the country, therefore we

Recommend that while this association expresses itself in favor of the manufacture of the best paints made from the purest materials, it also records itself as opposed to and condemns the existing laws on the subject and authorizes its Legislative Committee and officers of the association to use their utmost endeavors to oppose, and if possible, defeat any and all similar legislation that may be offered during the coming year.

FOREIGN TRADE-MARKS.

During the past year the Department of Commerce and Labor made an investigation concerning the pirating of American trade-marks, in foreign countries, especially in South and Central America. Briefly the conclusions of the investigation are that it is not practicable to secure an arrangement by treaty or otherwise between the United States and foreign countries that will protect American trade-marks abroad unless they are registered in each country in which the goods thus marked are intended to be sold. Therefore it would appear as if there is nothing that can be done beyond calling the attention of our members doing or, contemplating doing, business in foreign countries to the necessity of registering these titles in the countries for which their shipments are intended

DOMESTIC TRADE-MARK LAWS.

During the past year much progress and relief has been experienced by the passage of a new domestic trade-mark law. That the manufacturers generally approve of the new act is proved by the fact that no less than 10,000 applications for registration were filed in the U. S. Patent Office within four months.

AMENDMENT TO CENSUS LAWS.

During the past year a census of manufacturers was taken by the Bureau of Census. Some of the questions asked in the blanks submitted were found to be objectionable to manufacturers, and of such character that honest answers thereto would be detrimental to their business interests. The secretary of our association therefore, in his local club, had a special committee appointed of which he was a member to investigate the matter. This committee, together with others representing important trade organizations, met the director of the census through the courtesy of the Oil, Paint and Drug Reporter, and as a result, the supplemental schedule referring to paints and varnishes was withdrawn entirely, while the director expressed himself as not intending to enforce the penalty prescribed, should a manufacturer refuse to answer questions considered by him to be objectionable.

As "under the law the director of census possesses unlimited option as to the scope and details of his inquiry and absolute power to compel complete and accurate response under the law as it stands, and while a moderate and reasonable director might exercise his powers with due discretion, a less conservative official might demand and eventually secure full technical details of every manufacturing industry in the country." We

Recommend that the present law known as "Act of March 6, 1902, providing for the establishment of a permanent census office," etc., be amended to read that "Nothing in this act shall be construed so as to compel a manufacturer to furnish information which in his opinion could be used to his detriment." We also

Recommend that the director of the census or other proper official be requested to ask that such an amendment be made, and that the officers and Legislative Committee of this association through its secretary be empowered to take such steps as in their opinion will help make possible the passage of such amendment.

The President:—The report of the Committee on Legislation contains many recommendations. The first is, "That this association endorse the position of President Roosevelt as expressed by him from time to time, and especially as outlined in his last annual message to Congress, and as it expresses the views of our association on the subject, as follows:—

"The Interstate Commerce Commission should be vested with power, where a given rate has been challenged, and after full hearing found to be unreasonable, to decide, subject to judicial review, what shall be a reasonable rate to take its place; the ruling of the commission to take effect immediately and to obtain unless and until it is reversed by the court of review."

The Board of Control recommends the adoption of that as well as all other recommendations of the committee, which we will take up separately.

On motion by Mr. Morton, duly seconded and carried, said recommendation was adopted.

The President:—The second recommendation is "That if any bill embodying these features and endorsed by President Roosevelt shall be offered at the coming session of Congress, that the officers of this association and the Legislative Committee be instructed to do everything in their power toward the adoption of such bill."

Mr. Vial moved that the said recommendation be adopted, which motion was duly seconded and carried.

The President:—The third recommendation is, "That this association endorse the law prepared by the Na-

tional Association of Credit Men, as reported by our Legislative Committee last year, and adopted by the convention at that time as found on page 24, pamphlet of its proceedings."

On motion by Mr. Sulzberger, duly seconded and carried, the recommendation was adopted.

The President:—The fourth recommendation is, "That our association again endorse the bill reported last year by your committee, as found on page 26 of the pamphlet of proceedings of the last convention."

On motion by Mr. Longstreth, duly seconded and carried, said recommendation was adopted.

The President:—The fifth recommendation is, "That the principles recognized in this bill are endorsed, and that the next Legislative Committee be authorized to petition Congress on behalf of the passage of such a bill when finally prepared by its friends."

On motion by Mr. Longstreth, duly seconded and carried, the recommendation was adopted.

The President:—The next recommendation is "We therefore recommend the passage of said bill if again offered at the next session of Congress."—House Bill 7874.

Mr. Longstreth moved that the recommendation be adopted, and the motion was duly seconded and carried.

The President:—The next recommendation is, "That the local clubs use their influence toward having such laws passed by the Legislature in their respective States, and that the Secretary of the association secure copies of laws that have already been adopted in the States mentioned, and forward them to the constituent clubs in order that they may have a type for their information and guidance."

On motion by Mr. Longstreth, duly seconded and carried, the recommendation was adopted.

The President read the next recommendation as follows:

"We recommend that while this association expresses itself in favor of the manufacture of the best paints made from the purest materials, it also records itself as opposed to and condemns the existing laws on the subject and authorizes its legislative committee and officers of the association to use their utmost endeavors to oppose, and if possible, defeat any and all similar legislation that may be offered during the coming year."

Mr. Sulzberger moved that the recommendation be adopted, and the motion was duly seconded and carried.

The President:—We come now to the two recommendations on the last page:

"We recommend that the present law known as 'act of March 6th, 1902, providing for the establishment of a permanent census office,' etc., be amended to read that 'Nothing in this act shall be construed so as to compel a manufacturer to furnish information which in his opinion could be used to his detriment."

On motion by Mr. Sulzberger, duly seconded and carried, the recommendation was adopted.

The last recommendation of the committee was then read by the President, as follows:—

"That the director of the census, or other proper official, be requested to ask that such an amendment be made, and that the officers and legislative committee of this association through its secretary be empowered to take such steps as in their opinion will help make possible the passage of such amendment."

On motion by Mr. Longstreth, duly seconded and carried, the recommendation was adopted.

Mr. Clapp:—I move that we adjourn until 9.30 to-morrow morning.

The motion was duly seconded and carried and the President declared the convention adjourned to 9.30 A. M., Oct. 11, 1905.

THIRD SESSION.

Wednesday Morning, October 11.

President Field called the convention to order at 9:30 o'clock A. M., and the report of the Committee on Brushes was read by the Secretary.

The President:—This report is referred to the convention by the Board of Control, without recommendation.

Mr. Longstreth:—I move that it be accepted and filed as a matter of record.

The motion was seconded by Mr. Gillespie, and duly carried.

The report in full is as follows:—

Report of Committee on Brushes.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

Your Committee on Brushes found it impossible to hold a meeting owing to its members being so greatly separated, one in Chicago, one in Boston and the other in Pittsburgh, but the chairman with the approval of the other members begs to submit the following report:—

The condition of the brush business the past year has in the main been very satisfactory. Most of the factories were run to their usual capacity, but there was not the expected increase in demand commensurate with generally improved business in other lines. This was likely due to large stocks laid in by jobbers the previous year when there was every indication of an advance in the price of brushes owing to the Russo-Japanese war. It seems the effects of the war and internecine troubles in Russia had not yet spent their force, due to the gathered stocks of bristle on hand, but unless all indications fail it will make itself felt this year, and probably for several years to come. In the last fair in Leipsic the world's bristle market, the supply of good bristle was very limited and the best brands were quickly picked up at an advance. This would indicate what may be expected in the future. The Chinese market owing to easy money exchange, which to some extent dominates values, reflected lower prices, but how long these will continue is a question. This market is more or less speculative, but we think the brush manufacturer who has been able to buy at least a six months' supply has acted wisely, and will reap the benefit of his circumspection. The brush industry being bound by limitations should be far more profitable than it has been, and we think it would be well for the manufacturers to take steps to conserve their interests. The jobbers have been keen to take advantage of senseless rivalry for trade by the brush manufacturers, and in bidding against one another profits have been dissipated. There is surely trade enough in this country for all, and all do a safe and profitable business.

There is no line of manufacture that could insure safer investment of money if common sense discretion prevailed in the marketing of goods. This is a suggestion we hope may be beneficial and productive of good results. The principle menace to the brush industry, especially in the commoner lines of goods, is the prison shop. These prevail to an enormous extent in the State of Ohio. It is no exaggeration to say that in that State every institution is a prison brush factory. It behooves the brush manufacturers to take steps to mitigate this evil, and limit the sale and use of such goods to the State in which made. The State of Pennsylvania curtails prison labor in order to protect its industries, yet Ohio is permitted to dump its prison made goods into Pennsylvania by the carload. This is undoubtedly true of other States, likewise. Whether or not interstate commerce or Congress has a right to regulate this matter is worthy the consideration and action of the brush manufacturers.

With our compliments to the Paint, Oil and Varnish Association and best wishes for its success.

The report of the Committee on Paint Grinders was read by Mr. Sulzberger.

Report of Committee on Paint Grinders.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

The duties of your committee the past year have not been arduous; in fact, nothing has been referred to them, which should call for any action on their part. The year has been a prosperous one. The condition of the market for lead, zinc and oil, has been such that it has not called for any material changes in prices of mixed paints and colors. We find that the consumer is being educated to the fact, that the best grades of paint, are the cheapest in the end, and that the demand for high standard paints, has materially increased.

The labor question is one, that, in the future, must be considered; the demand for shorter hours, and advance in wages, will materially increase the cost of production. The prodigal waste of sample cards and advertising matter by the small dealer, should be carefully considered. It is the opinion of your committee that what costs a dealer nothing is valued in like proportion, and that a large amount is annually wasted, because of the want of a little care on the part of the manufacturer. Regarding the exchange of paints, your committee have heard of no complaints.

The subject of the duty on enamel white, is one that upon which the trade (no doubt) is well informed. At the meeting of the convention last October, the matter was referred to our secretary, Mr. Drake, who has given much attention to the subject, and has acted upon the advice of the U. S. district attorney and the counsel for the Treasury Department, both of them having had this matter in charge for the Government. As a result, a test case will come up in Cleveland, probably the Tuesday following the convention, and it is highly desirable that every member, who is in the least interested, should attend this hearing. Other cases are to come up in New York later, but the decision in the Cleveland matter will largely influence the final decision. We have every reason to hope for a successful issue, and strongly urge the members of our association to be present at Cleveland.

The President:—The report is referred to the convention by the Board of Control, without recommendation.

Mr. Peters:—I move that it be accepted and placed on file.

The motion was duly seconded and carried.

The Secretary:—I have just received a letter from the counsel of the Treasury Department, stating that he will be in Cleveland on Tuesday, and that the enamel white question will come up before the General Appraiser, at the Collector's office in that city, on Tuesday. The counsel is Mr. John A. Kent. His headquarters will be at the Hollenden Hotel. I expect to be in Cleveland that day, and as long as it is necessary in the matter, and will be at the Colonial Hotel. I do not know that it is necessary for me to take up your time by referring further to this. It was covered fully in my report and in that of the Committee on Paint Grinders, but this matter is very essential to the American Manufacturers of enamel white.

Mr. Gaulbert:—What is the nature of the case A case of duty?

The Secretary:—Yes. Your firm is interested in that. Just in one word, the importers have been bringing it in at a valuation of about 19 cents a gallon, as zinc in oil. They say that is what enamel white is. We contend that it is a solution in other than oil, and should pay about 50 cents. The importers have already had a decision in their favor, and we have been fortunate in getting the government to take up this matter and make its own fight, and they are sending the counsel of the Treasury Department on to fight the case, so that we are under no expense, and have the government fighting on our side. But it is up to the paint manufacturers to have their witnesses there, some one who can tell whether enamel white is zinc in oil, or wnether it is something more than zinc in oil.

Mr. Peters:—I move to reconsider the vote upon the report of the Committee upon Brushes. That report seems to have been passed over rather hastily. It contains a very important suggestion.

The motion was duly seconded and carried.

Mr. Peters:—I move that the report be accepted and placed on file, and that the suggestion as to restricting the sale of prison made brushes be referred to the incoming legislative committee for investigation and report as to the possibility of securing legislation that will restrict this form of competition. That seems to be in line with what is being advocated, certainly by all the labor organizations, and also by many manufacturing associations in other lines. I believe this will appeal to the common sense of most of us, and that an investigation by our legislative committee would possibly put us in shape next year to offer something directly in the way of suggestion, and to favor legislation in the different states.

The motion was seconded by Mr. Clapp, and duly carried

The report of the Registry Committee was then read by the Secretary. It was as follows:—

Report of Registry Committee.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

The rules covering the registration of trademarks, names and titles specified little or no work for the committee to do, and necessarily their report will be very brief.

Under the direction of the Registration Committee, the secretary has devised a complete filing system for the proper registry of trade-marks, names and titles including those already registered. A cross index has been devised whereby the secretary by referring to it can promptly ascertain the titles that have been registered, and can also tell at a glance the diffirent titles or trademarks claimed by the different firms that are members of the association.

Owing to a lack of funds it was deemed advisable not to publish a complete new list on the first of May, as your rules directed, but on that day a supplemental list was published. On September 1st, as directed, a second supplemental list was published, copies of which were sent to the several members of the association. In all there have been 310 titles registered during the year, and we are pleased to be able to report that we have not been compelled to register any duplicate title. In one or two instances duplicate trademarks or titles were submitted for registry, but upon notification being sent that such titles had already been registered, the firms requesting second registry have withdrawn their applications.

Special application blanks have been furnished to all who have made the request. On these applications a few recommendations were printed for the guidance of members who had not applied for registration of titles.

Your committee believes that the registration bureau is one of the most important adjuncts of the association. When we first accepted the appointments the committee feit it would be called upon to give a great amount of work to this particular matter, so under the circumstances it is particularly gratifying to be able to say that there have been absolutely no controversies and the work of the committee has been very light.

The President:—This report is referred to the convention by the Board of Control, who recommend its adoption

Mr. Clapp:—I move that it be adopted and placed on file.

The motion was seconded by Mr. Sulzberger and duly carried.

The report of the Committee on Membership was read by the Chairman, Mr. F. A. Glidden, as follows:—

Report of Chairman of Membership Committee.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

In reviewing the conditions at present existing in the local clubs throughout the country, it is quite noticeable that in certain sections there is a lukewarmness, or indifference, which is due entirely to lack of co-operation and enthusiasm. The large clubs, such as New England, New York, Philadelphia, Chicago, St. Louis, and Cincinnati Paint Clubs seem to be in a healthy and flourishing condition, but in the smaller clubs there seems to be a lack of co-operation and interest, due, we believe, to the fact that the majority of their members expect a limited few to shoulder the responsibilities of the club, instead of all using their best efforts to increase the membership, which would naturally strengthen the club, and make the meetings more interesting.

We suggest that the Secretary of the National Association be authorized to get into closer touch with the various secretaries of such local clubs as need bolstering up, and get the different secretaries to use their influence in trying to restore confidence, good will, and good fellowship in such clubs. The monthly meetings would then be looked forward to with pleasure rather than as an obligation.

We also think that if the secretary of each local club would send out a letter of notification of club meetings to each of its members, enumerating the subjects to be discussed, the entertainment to be afforded, if any, and make a strong appeal for their presence at the meeting, it would have the effect of increasing the attendance, and make the meetings more interesting. We presume some clubs send out notices of this kind, but others simply notify the various members as follows:—

There will be a meeting of the Paint Club at ——— on ———. Kindly inform the secretary if you will be present, etc., etc.

By making the notice of meeting stronger, and pleading harder with the members, we believe it would result in getting more members to attend. This would naturally have a tendency of stimulating the weaker clubs, and if it could be accomplished it would of course have a grand, good effect upon the National Association, which is nothing more or less than the parent club. The local clubs are its offspring, and every parent's greatest wish is to have good, healthy, and prosperous children, and they cannot have them without the proper training and nursing.

Consequently, the National Association must use its best efforts to promote the interest of the local clubs, and the local clubs must use their best efforts to get the individual members interested by offering some kind of inducement to take a more active interest in the club.

We regret that our Membership Committee has not accomplished more satisfactory results during the past year, and we believe it is due entirely to the fact that most of its members have been too busy to give work the attention it requires. We also suggest that the National Association make a small appropriation for the purpose of allowing its secretary to visit such cities as Syracuse, Baltimore, Washington, Richmond, New Orleans, and possibly the Twin Cities, to see if he cannot succeed in getting the paint trade enthused sufficiently to organize a paint club in their respective cities, and join the association. This would leave Portland and San Francisco to be handled through correspondence.

We believe, however, that if the National Association will work on lines as suggested above, i. e., authorize its secretary to keep right after the various local secretaries, it would be of great assistance to the new Membership Committee, and enable it to make a much better showing in 1906.

We are pleased to advise the association that we have succeeded in adding one more club to the present list, viz.:—The Cleveland Paint, Oil and Varnish Club, thus breaking the unlucky number of "thirteen," and making the enrollment fourteen clubs. We have also succeeded in adding eight individual memberships.

The Paint, Oil and Glass Association of Iowa, comprising thirty-nine members, is desirous of joining the National Paint, Oil and Varnish Association, providing the assessment would not be over $25 per year. Considering the fact that this association is comprised principally of dealers and jobbers who are scattered throughout the State, and do not have the benefit of club meetings, and inasmuch as their annual dues are at present only $2 per individual membership, we believe it would be wise to accept their proposition.

We also think it would be well for the National Association to use its best efforts to hold all the clubs now in the association, for we surely want their co-operation and assistance, and where conditions are such as to necessitate scattered membership, as in the case of the New England Club, and the Iowa Club, and the proposed consolidation of the San Francisco, Portland, Seattle, Tacoma, Los Angeles and Sacramento clubs, into one organization to be called the "Pacific Coast Association," we believe it would be well to allow such associations to join the National Association, with the understanding that the yearly assessment be a specific amount to be decided upon by the National Association, for where there is a scattered membership in such clubs, a great many members do not have an opportunity to get the benefit which is to be derived by attending club meetings. We believe it is therefore to the interest of the National Paint, Oil and Varnish Association to increase its membership as much as possible, even if they have to take in such organizations at a nominal figure, as we want the co-operation and help of all.

We are pleased to report the membership of the local clubs as follows:—

New England, 124, condition good; Chicago, 83, condition good; New York, 84, condition good; St. Louis, 64, condition good; Cincinnati, 44, condition good; Pittsburgh, 27, condition good; Philadelphia, 22, condition good; Buffalo, 24, condition fair; Milwaukee, 15, condition poor. No reports from Detroit, Kansas City, Denver and Louisville.

We wish to thank our worthy secretary for the co-operation and assistance he has given our committee.

The President:—The chair could not help but note the modesty of the committee, in their statement that they regret that they have not accomplished more. The enrollment of one club, eight individual members, and the situation that brings the Iowa Paint, Oil & Glass Association as an applicant to this association, I think is most creditable to any committee on membership. The Board of Control referred this report to a special committee of its own, which has reported back, and the Board favorably endorses a resolution, which I will ask Mr. Cheesman to read at this time in connection with the report.

Mr. Chessman:—At a regular meeting of your Board of Control the following resolutions were drafted and unanimously adopted, and are hereby submitted to you for your favorable consideration:—

"Resolved, That Article III of the bylaws be stricken out, and the following new article inserted in its place:—

ARTICLE III.

" 'Section 1. Each club or organization composed of ten firms or less shall pay as annual dues the sum of $30 and an additional sum of $3 for each firm represented in such club in excess of ten firms; and the names of firms comprising each club shall be reported to the treasurer when the payment of the annual dues of $3 per firm is made, and this payment shall be made on all firms so reported.

" 'Sec. 2. For the purpose of increasing our membership and promoting the growth of the association, the Board of Control shall have power to admit at their discretion and under such conditions as they see fit any state or territorial organization, not embracing local clubs, and who otherwise are eligible to membership.

" 'Sec. 3. Each individual member shall pay as annual dues the sum of $3.

"'Sec. 4. Honorary members shall be exempt from payment of dues.

"'Sec. 5. Annual dues shall be paid to the treasurer on or before November 15th of each year.'"

I move that these resolutions be adopted.

The motion was seconded by Mr. Longstreth.

Mr. Peters:—Will Mr. Cheesman tell us wherein those proposed amendments differ essentially from the existing by-laws?

Mr. Cheesman:—There is no change made in Section 1, except that we emphasize the fact that the club pays on a firm representation, and not individually. That has been done by all clubs excepting the New England Club, who did not seem to understand the by-laws as they are now. Section 2 is an entirely new section, allowing the Board of Control to admit organizations where there are no local clubs, under such conditions as they see fit Section 3 changes the dues of individual members to three dollars. It seemed to be wise not to charge an individual member more than a member of a club. The other change is in Section 5, annual dues to be paid on Nov. 15. This seemed to be necessary, because the great need for funds is right after the convention, and at present the treasurer gets no funds until Jan. 1.

Mr. Cutler:—How would that affect the New England Club?

Mr. Cheesman:—The New England Club paid this year on 52, although they report a membership of 124. It is so credited by the membership committees. They paid, however, on individuals, and not firms. Now, if that club will pay on firms, as near as we can figure it will not cost them any more as there are only 39 firms in the city of Boston, about 6 in Providence, and 7 or 8 in Portland, making a total of about what they paid on, 52.

Mr. Cutler:—When the New England Club joined the association we did so under the understanding that we should pay only on Boston membership, and that we have continued. The report of membership in the last report published was incorrect, as there were several members credited as being Boston members who were not Do I understand that we now are to pay only on Boston firms?

Mr. Cheesman:—That is the exact meaning of the by-laws as they now stand, that you only pay on firms

Mr. Cutler:—But the by-laws stated that we should also pay on Portland and Providence firms.

Mr. Cheesman:—Not as the by-laws now stand. The old by-laws did.

Mr. Cutler:—The by-laws as read by you, as I understand, say that we should pay three dollars on all firms.

Mr Cheesman:—Yes.

Mr. Cutler:—And that would mean throughout New England.

Mr. Cheesman:—All firms reported by the club. Your secretary need only send in names of such firms as are desirous of being represented in the National Association, for which you send three dollars. That is all.

Mr. Rice:—The thought was that if Providence, Portland, and other places, which were members of the New England Club, wanted to become members of this association they could easily do so by paying the three dollars themselves, and individuals also if they wished to do that, according to these by-laws, and have all the benefits any of us have. I think this is made clear and sweeping and applicable to all. I hope it will pass.

Mr. Clapp:—What would be the status of individual members? As I understand, a firm can become a member upon payment of three dollars.

Mr. Cheesman:—Five dollars now. Three dollars if this is adopted.

Mr. Clapp:—Last year it was five dollars, and before it was ten dollars, and several individual firms paid annual dues of ten dollars. Now, I desire to know what rights these individual firms have here. Have they the right of the floor, a right to vote, and are they members the same as delegates sent from the clubs, with the same rights and privileges on the floor of the convention?

The President:—Yes, sir.

Mr. Cheesman:—That is covered in Article IV, and has nothing to do with Article III. It will be brought up at the discretion of the Chair a little later on, and we will be glad to have a discussion on it.

Mr. Andrews:—It is rather a misleading change in the by-laws, inasmuch as you state that an individual firm has the right of the floor, it seems to me.

The President:—That is in towns where there are no local clubs?

Mr. Andrews:—Quite right. But in New England they have a membership, in Boston alone, of 39, 6 in Providence, and 5 in Portland. You go to Boston for a convention, and those six individuals from Providence, and the five from Portland could come to Boston, and would have eleven votes, notwithstanding the fact that they are affiliated with the New England Club. That does not seem hardly fair.

Mr. Cheesman:—This is hardly germane to the subject before the house. We are talking about annual dues. That comes up under the head of representation at meetings, which will be brought up.

Mr. Andrews:—Notwithstanding that the gentleman says it is not germane to the question, I think it is.

The President:—The Chair is disposed to be as liberal as possible upon what is germane; we have plenty of time, and we would like to have this discussed.

Mr. Andrews:—I should like this voted down, if individual members are to be allowed the benefit of the floor, whether they be affiliated with local clubs or not.

Mr. Washburn:—It seems to me it would be well to read that Article IV., to know better how to vote.

Mr. Cheesman:—We are now on Article III. I do not see that Article IV. in any way affects Article III. The only change in Article III., as to individual members, is to reduce the fee to three dollars. That has no effect on their other standing. We cover that in Article IV.

Mr. Washburn:—We want to know what Article IV. says about it, in order to know how to vote on this question, of whether individual members would have a right to vote.

The President:—The gentleman will please read Article IV. for the information of the convention.

Mr. Cheesman (reading):—"At a regular meeting of the Board of Control the following resolutions were drafted and unanimously adopted for your favorable consideration:—

"'Resolved, That the first paragraph of section 1, article IV, be amended, to read as follows:—

"'Section 1. Each club or organization shall be entitled to send delegates to the meetings of this association according to the number of firms reported by the club to the national treasurer and for whom the regular annual dues have been paid, as follows:—

"'One delegate for ten firms or less; two delegates for more than ten and not more than twenty-five firms; one delegate for each additional twenty firms; and for organizations of national character entitled to membership in this association, one delegate-at-large for each organization.'

"That section 2, article IV, be amended to read as follows:—

"'Sec. 2. Individual members and honorary members shall be entitled to the privilege of the floor, but shall not vote.'

"Section 5, article IV, to be omitted, and section 6 to be made section 5."

It did not seem to your committee a fair proposition that an individual member should be entitled to vote, whereas a delegate, representing ten firms, would only represent his own firm, and therefore they changed it to read that individual members should be entitled to the privilege of the floor, but not the privilege of voting.

Mr. Rice:—That applies only to individuals, as I understand it, not to firms in or out of New England?

Mr. Cheesman:—Individual firms coming in under individual membership.

Mr. Clapp:—Your secretary has put forth a good deal of effort during the year, and in years before, to secure individual members in towns where there were no clubs, where they could not have the privileges of the club, and could not join a club. Their money has been solicited, their membership, and you have admitted them as members He read yesterday quite a list of those We have quite a few of them in Ohio. They send a member of their firm here. Are you going to say that member has no rights here? He has paid his money. He can come here and look on, but has no rights? Do you say that?

Mr. Cheesman:—No. We say he has the same privileges as any other member, but not the same as a member coming as a delegate representing ten firms. That is all.

Mr. Clapp:—Ten firms or less.

Mr. Cheesman:—Or more. He can get up and talk all he wants.

Mr. Clapp:—What good does that do? Look at this list, the Northern Paint Company, St. Paul, became members; Jamestown Paint & Varnish Company, and here is a firm in Spokane, and one from Baltimore; nine of them that have become members. If you send your secretary under instructions to solicit this membership, getting their five dollars, as you did last year, and ten dollars heretofore and bring them here and say they have no rights, except to get up and spout a little while, that doesn't amount to anything. They have no right to vote. They are disfranchised. Don't talk to me about such a thing. It isn't in reason. It isn't just. And I do not believe this convention is going to ask individual firms to become members and then say they have no rights here. (Applause.)

Mr. Cheesman:—The New York Paint Club, with a membership reported of 84—79 members of that club have no more right to vote on the floor than we want to give the individual members. We have already knocked out 79. Our secretary reports that seven out of the nine new members were induced to join so that they could get in to our registry bureau; that was their same reason for joining; and if I am rightly informed none of them is represented here, so they will not feel hurt because they are not allowed the same privilege as a delegate representing ten firms.

Mr. Arnold:—I would recommend that we change this so that the representation represents the members; and if New York has 85, have 85 votes, and let every man on this floor have a vote.

Mr. Cheesman:—That would be the only fair way, if this other thing goes through.

Mr. Sulzberger:—There evidently is a great deal of justice on both sides of this matter, but we might as well say that the United States Senate is wrong, when the State of Washington is allowed two votes, and the State of New York the same. That is about the position we are in. It is very hard for these others to be disfranchised. At the same time, it is also wrong that each one of them should have as many votes as the 79 members from New York. So I think this is rather too big a problem for us to settle at the present moment. I believe it would be a very good idea to have this entire matter referred to a committee, who could give the matter more thought than we have been able to in this short time; and I move, before finally adopting any of these by-laws, that the matter be referred to a committee, to draft something that would be fair and equitable to all members concerned.

Mr. Rice:—I hope it will be referred to the Board of Control.

Mr. Andrews:—There is one other question that is overlooked, inasmuch as this contemplated change would allow a concern to join a local club without being affiliated with the National organization. And for this particular reason I hope this will be voted down.

Mr. Sulzberger:—I would offer my motion as a substitute.

Mr. Andrews:—I will second the substitute.

The substitute was then duly carried.

The President:—How shall that committee be appointed?

Mr. Washburn:—I would suggest that that go to the Board of Control, instead of a committee.

The President:—I think, under our by-laws, it would have to go there eventually, anyway.

Mr. Clapp:—The Board of Control have this matter in hand. They have spent a good deal of time upon it, and know what the objections are, and they can remedy it much more readily than a new committee would.

The President:—The Board of Control would be very glad to further consider it.

Mr. Somers:—I move to reconsider the vote, in order to make a motion to send it to the Board of Control.

Mr. Sulzberger:—I will allow the vote to stand that way.

The President:—I do not think it is necessary. If there is no objection it will go to the Board of Control. We will therefore pass over action upon the report of the membership committee, until the Board of Control reports.

The report of the Comittee on Tariff was then read by the secretary.

Report of Committee on Tariff.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

Your committee would deem itself very fortunate could it but indicate some relief from the recognized difficulties in our present system of revenue and protection.

Through the growth of many industries (that have passed the infant stages) opposition to present schedules, or indifference to the protection afforded, is being manifested and a growing sentiment in favor of modifications—reciprocity or the introduction of dual rates or conventions with some—if not all countries— is advocated, but outside of a few of the individually affected industries a careful estimate of progress so far made does not hold out much in the way of encouragement as to immediate or near results.

The fear of a tariff wrangle in the halls of legislation, and the attendant business derangement, is taken advantage of by those who are interested in the maintenance of present schedules, and in the absence of statesmen who dare stand for what they know is enevitable—the winning side being all that appeals to them at present—all suggestions as to modifications are discredited as soon as launched and finally relapse into a faint appeal for a tariff commission.

Even His Excellency, the President of the United States, it is alleged, contemplates renewing this now ancient and naturally inefficient scheme regardless of past experience with such commissions, and the apparent unconstitutional feature of conferring law making prerogatives on any but the regularly constituted authority; if simply recommendatory as to the conclusions such a commision might reach, these conclusions would still have run the gauntlet of partisan policy on the floors of Congress.

The Lovering bill for enlarging the drawback features of the administrative acts as to the customs is a positive and the only solution that may be offered the American manufacturer in order to secure to him for foreign sales the benefits of free raw material, and at the same time preserve the home markets from foreign competition.

If revisionists of all schools would concentrate their efforts on this proposition an advanced step would be taken that would open the door to continued prosperity for our manufacturers and the better employment of American labor.

In our own trade the now celebrated enamel case is approaching a solution through the efforts of our efficient Secretary. The interpretation of the law in this case is one of the singular incongruities of the present system. As this has already been alluded to in the report of the Secretary it is unnecesary to repeat in this report.

Tax free alcohol is still occupying the attention of some of our allied lines and their associations. The difficulties presented by the scheme, as alluded to in past reports, in which this association has been compelled to take opposite views as to the desirability of such a change, are now much further enhanced by reason of the higher rectification of methylated spirits, which makes it all the more difficult of physical detection, and we still trust this association will condemn the suggestion of any modification of our internal revenue laws on the subject.

The President:—This report was referred to the convention by the Board of Control with the suggestion that it be adopted, after eliminating the fourth paragraph.

On motion by Mr. Longstreth, duly seconded and carried, the recommendation of the Board of Control was concurred in.

The convention then took up the consideration of resolutions offered from the various clubs, and the following from the New York club was first read by the secretary:—

"Resolved, That this association hereby approves the plan of inter-insurance suggested in the report of the Committee on Fire Insurance."

The President:—This is approved by the Board of Control, and is now before you for action.

Mr. Somers:—At the request of the delegates of the New York club I prepared that resolution, not as much to force the issue at this time as in consideration of the great amount of work done by the committees for the past and previous years. From the report read by Mr. Clapp yesterday you will observe that this matter has been gone into very thoroughly, and it has now reached a point where a practical plan has been presented that will carry out the ideas of the committee. That plan may or may not appeal to the members. In order that the matter might be disposed of once for all, and that we put ourselves on record as either favoring or disapproving the plan, this resolution is presented. I believe it ought to receive the fullest kind of discussion, and to be considered very carefully and fully, because it is a very important matter. You understand that if this resolution passes, it places the association on record as favoring the plan suggested in the report presented by the committee. It imposes upon the members of this organization a moral obligation to assist in the carrying out of that plan. The question, therefore, for each one present, and whom I believe in the consideration of a matter of this kind ought to be present, is worthy of the most serious consideration. They ought to feel that they are supporting the committee, if they vote in favor of this resolution. They ought to feel that if the committee goes ahead and employs, as a future resolution will provide, the services of an underwriting expert, that they are under every obligation to assist in the carrying out of that plan. If you do not want to take up this matter, do not want to subscribe to this idea, do not want to become a part of this general scheme, now is the time to say so, and do not have your committee go ahead and do a lot of work that will result in no conclusions worthy of a scheme of this kind. If you don't want any more done along the line of insurance, it is up to this association to discharge the committee, giving them their thanks, for they are deserving of that, but do not give them your approval, and then withdraw your support afterwards. We ought to deal fairly with the committee and with ourselves.

Mr. Gaulbert:—May I inquire what the plan is?

The President:—There are undoubtedly a number of gentlemen present who were not here yesterday. You can state it in a few words, Mr. Somers.

Mr. Gaulbert:—It means the organization of an insurance company, I suppose.

Mr. Somers:—Yes, sir, of an inter-insurance company.

Mr. Sulzberger:—I have listened to Mr. Somers' able remarks, and do not question but that he is perfectly right in everything he says, but as to the question of what our endorsement means, I must take exceptions to that, for this reason: We do not represent ourselves, we who are on the floor here. We are representatives, in Chicago, of 79 members, or 83 members, as the case may be; and if I as an individual or as a delegate or as a member of the Board of Control vote aye, I can vote for myself, while, as a matter of fact, when I do vote, I should represent the club for whom I am voting; and consequently I cannot conscientiously vote and place a certain responsibility on the people whom I represent, and a vote gotten in this way is not as effective, and doesn't mean as much as it might be supposed to mean. It is all very well for us to give this our moral support, but whether we can give it our practical vote, a vote that would mean something, the way we are elected to represent the clubs here, is a question that the insurance committee will have to consider when the vote is taken.

Mr. Day:—Has this question been debated before by the local clubs? Cleveland, just coming in, it has not been brought up by the Cleveland Club.

The President:—It has not by the Chicago Club.

Mr. Day:—I would not feel that I was authorized to vote on the question. It seems to me, unless it has been taken up by local clubs before, and the delegates instructed, you are going a little too fast, and that it should be reported by the delegates to the local clubs, and taken up next year.

Mr. Somers:—It is nothing new, as far as this association is concerned. As I remember, two committees have had the matter in charge, last year and the year before; they worked very industriously, gathering statistics from all over the United States. I know

that the Eastern part of the country was very thoroughly canvassed, and I resume Mr. Clapp as thoroughly canvassed the Western section; so that nearly all of those who would be interested in this scheme have been appealed to during the past two years, and even though the matter has not been discussed by local clubs it has been under the consideration of the firms who would naturally be appealed to to take advantage of any privileges that might be offered through a scheme of inter-insurance, as has been suggested.

Now, I do not want it to appear that I am heartily and enthusiastically in favor of the scheme. I am willing to say that personally I stand rather noncommittal. I haven't the slightest idea now whether it would be to my advantage to participate in this inter-insurance. It is now up for disposition one way or the other. The question is, shall we approve of the plan suggested? It contemplates the insuring the individual firms, each with the other, divided into certain groups, depending entirely upon the risks attached to particular plants. It is rather long, but not a very complicated scheme. If this resolution is adopted it simply gives the insurance committee's plan the stamp of approval, and another resolution will follow, authorizing the Committee on Fire Insurance to go ahead, devise the plan, carry it out, perfect it, engage the services of an underwriting expert, whost business it will be to interview the members naturally interested in the general scheme, without, of course, any expense to the association, in the hope that if the scheme is a successful one that the expense of underwriting will be paid out of the first year's premiums; so that, if the scheme is not successful, if the expert should fail in securing the proper number of subscribers, there will be absolutely no expense. I say to you, unofficially, that he is willing to take his chances. I believe I am informed correctly when I make that statement. He is perfectly willing to take the chances of canvassing the matter thoroughly, and soliciting the support of the members of the paint, oil and varnish trades through the parts of the United States that this association reaches. So, we might as well understand the matter. If we pass this resolution we simply stamp our approval upon the scheme, whether this man will be employed by the committee, without any expense to you, and he will go ahead, and the matter will naturally evolve itself.

Mr. Rice:—I would like to have an informal vote from the members here as to whether they approve it, so far as we understand the thing, whether we are in favor of the movement at this time, provided it can be taken without any expense to this organization. I make that motion.

Mr. Peters:—I would offer this substitute for the resolution:—

That it is the sentiment of this convention that inter-insurance as suggested by the Committee on Fire Insurance is practicable, and that the present Committee on Fire Insurance be continued and instructed to formulate a specific plan to be presented to the members of the various clubs throughout the country for their adoption, and that the sum of $100, or so much of that amount as may be necessary, be appropriated for the expense of such work.

Mr. Andrews:—I second the motion.

Mr. Gaulbert:—I believe it is a burning subject, and that it ought to go to the clubs, instead of being decided here by the association.

Mr. Somers:—I had that very idea in mind, and had divided my resolutions. There are two resolutions there, covering that point, but I am perfectly willing to accept Mr. Peters' motion as covering the whole thing.

The President:—And withdraw the other?

Mr. Somers:—And withdraw the other; withdraw both.

Mr. Cheesman:—I offer as an amendment that the appropriation of $100 be stricken out. We have now a deficiency in the treasury, and I do not believe we ought to appropriate that which we have not, as the Fire Insurance Committee are perfectly willing to do it without any expense.

(Amendment seconded.)

Mr. Peters:—It was stated yesterday by Mr. Clapp that it was necessary, in order to make this plan operative, that a specific plan should be formulated, and that that would require the services of an expert and some expenses on the part of the committee, and that some appropriation should be made for that. I think that was stated by Mr. Clapp on the floor, or, if not, in conversation with me.

Mr. Clapp:—I would like to read one clause in our report which embodies the committee's idea, and the real meat of the subject, and what they desire this association to approve, and that is "to carry out the above plan of insurance it will be necessary for the association to secure the services of an expert underwriter, one who has had long experience, and preferably in this line of insurance; such person should be an attorney in fact and manager of the enterprise. Assisting him, and governing in all essential matters, would be an advisory committee of five of this association, selected by the members participating in the plan." This resolution offered by Mr. Peters embodies practically that recommendation, and it meets the approval of the New York Club. The statistics, and reports of all other companies and associations along that line, bear out the fact clearly that there can be hundreds of thousands of dollars saved annually to this association by this method of insurance.

Mr. Rice:—Do I understand you say anything about expense involved?

Mr. Clapp:—We did not mention it. We say that an expert will have to be employed, and we can hardly be expected to employ a competent man, a thorough man, that understands insurance along such lines, without some expense.

Mr. Rice:—I understood he was willing to do all that without expense.

Mr. Clapp:—This simply is for preliminary work. When it is all gotten together, when the plans are all evolved, you may not want any of it. It is subject to your approval after this preliminary work is done, like the preliminary drawings for a structure. When it is presented to the different clubs they may not think favorably of it. But I believe, as the remarks have been made here, that it is useless for you to carry along an insurance committee, as you have been doing, for the last two years, and have them put to the personal expense and efforts which they have been to, to bring these facts out, without either doing something with it, or saying "We don't want anything of it."

Mr. Evans:—The Insurance Committee has made every endeavor to avoid the incurring of expense, and has not incurred any which the association has to bear. In reply to the gentleman from Cleveland, I would say that the plan of insurance which has been recommended by the New York Club and the Insurance Committee of the association was suggested by the fact that the largest industry in Cleveland has been successfully underwritten in this kind of insurance for a great many years, to its very great profit, and the same thing from another of the largest concerns in the East. The fact that this has worked successfully with other industries is the reason why the committee takes the responsibility of recommending it to the association.

Mr. Washburn:—Haven't we understood here from Mr. Evans and some others that there would be no expense attached to this thing; that the party who would be willing to take this up is willing to run the risk as to whether the association would come in or not?

Mr. Rice:—In view of the possibilities.

The President:—The Chair cannot answer for the understanding of the gentleman, after all the discussion. Personally, that was my understanding.

The amendment offer by Mr. Cheesman was then carried.

Mr. Rice:—I voted in favor of that. Now, I am willing to say that if this does prevail, and one hundred dollars is wanted, I will be one of twenty to pay the $100.

The President:—If there is no objection, that will stand.

The question is on the original resolution, as amended.

Mr. Clapp:—This committee certainly should be one well versed in the various lines of insurance. It should be made up of experts, and I assure you that none of this committee is an expert insurance man. We have simply gone at the plain blunt facts, and have been able to collect the statistics and facts and present them to you. Then, again the third man on this committee is not a member, nor his firm. Mr. Wall is out of the employ of the American Linseed Company.

The President:—I do not believe that this association can find anyone among its members more expert than the committee.

The substitute resolution offered by Mr. Peters, as amended, was then adopted.

Mr. Glidden:—I would suggest that a copy of that report, which I consider a very valuable and able one, and I think we all do, be sent to each member of each of the clubs, with a suitable letter. I think that will bring about a large attendance at the various clubs, on an important question of that kind, and it would have an effect on the local clubs. I make that motion.

The motion was seconded by Mr Evans.

Mr. Morton:—As I understand, this insurance applies only to manufacturing plants, and it would seem to be unnecessary to send a circular to wholesale houses and trades not interested in the subject of manufacturing, and I would move as an amendment that the secretary send it only to manfacturers.

Mr. Glidden:—I accept that.

Mr. Andrews:—This is all to be published in pamphlet form and to go to all the members.

Mr. Glidden:—It is a question whether it would be read. I think a strong letter, with the report included, would get much better attention.

The motion was then duly carried.

Mr. Peters:—I believe it has always been customary at these meetings to have a committee, or some person, appointed to revise the report before it got into print. How has that committee been appointed generally?

The President:—That has always been appointed by the Chair upon motion.

Mr. Peters:—I make the motion to that effect.

The President:—It is moved and seconded that a committee be appointed to revise and edit the proceedings.

Mr. Peters:—I would suggest that the president and secretary be on that committee as they are familiar with it.

Motion duly carried.

The President:—I will appoint Mr. Peters as chairman and the president and secretary will associate with him, to consider it.

Mr. Clapp:—I move you that Mr. Peters be appointed upon the Insurance Committee in place of Mr. Wall.

The motion was duly seconded by Mr. Wettach, and carried.

The secretary then read the following resolution, presented by the New York Club:—

Whereas, the rulings of the naval constructors of the United States practically prohibit the use of American made bottom paints, and

Whereas, it is a well established fact that American paints for this purpose are fully equal in quality to any foreign made paint, be it

Resolved, That this association through a special committee petition the Secretary of the Navy, setting forth the facts in the premises and strongly urging that preference be given to American made paints whenever it is established that the quality is equal to that of the foreign made paints, heretofore used.

Mr. Rice:—I move that the resolution be accepted.

The President:—It is presented with the approval of the Board of Control.

The motion was duly seconded and carried.

Mr. Longstreth:—I move that the president appoint a committee, as provided for in the resolution.

The motion was duly seconded and carried.

The following report was then read by the secretary:—

During the month of August, a national convention was held in Chicago by various interests who were favorable to this government, through its legislative and executive offices, declaring for reciprocity with foreign nations.

Your president delegated me as one of the representatives of this association at this convention. All the speeches and reports of this gathering were published in the daily papers and such of you who were interested undoubtedly read the same.

This subject bears about the same relation to politics as the tariff question does, and I believe this association has always declared against any subjects having any political bearing. I therefore suggest this matter be referred to Committee on Tariff. Respectfully submitted.

S. L. Sulzberger.

The President:—That is the report the president referred to in his address, and it is sent by the Board of Control as a matter of information.

The following resolution was then read by the secretary:—

Whereas, the extended sale of adulterated linseed oil is rendered possible only by the improper use of the U. S. mails,

Resolved, That the attention of the Postmaster General be called to this abuse of postal privileges, with the request that he investigate the conditions and take the proper action.

The President:—This resolution was not approved by the Board of Control.

Mr. Peters:—I move that the action of the Board of Control be sustained.

The motion was duly seconded and carried.

The President:—It would be perhaps propert to state that the auditor has endorsed the treasurer's report as follows:—

"I have examined the treasurer's report and find same correct, and balance on hand $61.50. John B. C. Wheeler, "Auditor."

The following resolution was then read by the secretary, the president stating that it had been approved by the Board of Control.

Whereas, the registration of a trade mark, name or title in the Registration Bureau of the National Paint, Oil and Varnish Association, while possessing identical legal value as being evidence of use at the date of registration, is of superior advantage as a safeguard to members of the association against adopting trade marks, names or titles already adopted by others; be it

Resolved, That the bureau be open for registration to any manufacturer, dealer or allied paint interest, irrespective of membership in the association, upon payment of the regular registration fee.

Mr. Cheesman:—Whatever faults the Philadelphia Club may have it certainly does possess the virtue of persistency. They have brought this motion up year after year and each time it has been voted down; this year it passed the Board of Control by a majority of only one vote.

As I have said many times before, to my mind the Registry Bureau is our most valuable asset and should be used not only as a Record of Titles, but as a means towards the increase of our membership, and the rules adopted last year did increase our membership as a number of firms finding that they could not use the Registry Bureau without becoming members joined our organization.

For many years anyone could use the Registry Bureau, it not being necessary to be a member to use it, so this is not a new step that the Philadelphia Club urge us to adopt, but an old idea that has been tried for years and condemned, and the rules as they now stand are approved by the Registry Committee as causing no friction or trouble, and they make no record of any changes in the rule, while one of the members and pour Secretary can testify that they brought into our fold a number of new firms who never would have joined otherwise.

And yet with all this I can see how an injustice might be done to a firm. For instance, a firm in the city of Philadelphia might for good and sufficient reasons decline to join the Philadelphia Club, and yet desire to avail themselves of the Registry Bureau, to cover such a possible if not probable case I move the following amendment:

That Rule 1 be changed to read:—It shall be the duty of the Secretary of the National Paint, Oil and Varnish Association to receive for registration all trade marks, names and titles sent to him by any firm or corporation in good standing in the trades covered by this association, irrespective of membership in the association.

And as it does not seem right or just that non-members be allowed this privilege at a lower rate than members, Rule 5 be changed to read as follows: 5. The fee for registry to members shall be fifty cents for each trade mark, name and title registered with a minimum fee of two dollars, and to non-members the fee shall be fifty per cent. more than charged to members.

I move the adoption of this amendment to the resolution.

The motion was seconded.

Mr. Heckel:—The motion has been presented by the Philadelphia Club because that club does not think that persistency is an evil. It thinks when it has a good idea it is a good thing to hold to that idea until others come to its way of thinking. In Philadelphia during the past years there have been several occasions when the members have lost a good deal of money largely on account of the enforcement of our present rules, and as one of our members expressed it, "We had better pay outsiders to register, if they can be so induced, than to charge them for registration and keep them out," because this registration list is of as much value in preventing mistakes by members in duplicating others' titles as it is to the members registering. That is the reason the Philadelphia Club has tinued to present this idea, and I heartily support Mr. Chessman's amendment.

Mr. Sulzberger:—It may appear to some, without giving due consideration, that we are getting very liberal when we allow others who are not members of this association to take advantage of our registry bureau. Now, we are not as charitable as it may look upon the face of it. We are doing this for our own protection, and we are doing it for the value that it is to this association, and if we can get people to respect our titles and give us their titles, who are not members, we are doing a boon to the members of this association. I know that in the Paint Grinders' Association, one of the largest paint grinders in the United States asked the privilege of joining in the non-exchange agreement, and they are not members, and we were very glad to get their signature.

Mr. Park:—Representing some of the Philadelphia Club, I could not have expressed the sentiments of that Club better than Mr. Sulzberger has done. We came here prepared to explain the matter of its widening the scope of the registry bureau, and if Mr. Sulzberger had been present at the last meeting of the Philadelphia Club, he could not have gathered their ideas better.

Mr. Day:—I would like to say that this trademark matter had considerable influence on the Cleveland Club's coming into this association.

Mr. Cheesman:—As the secretary has reported, seven out of the nine individual members that came in this year came simply to get the benefit of the registry bureau. Another point that has not been touched on, the registry bureau this year, for the first time in its existence, has been self-supporting, and it therefore seems to me that the rules as adopted were fairly good ons, and yet I can see why, as I stated, it might be well to let an outsider in, although under this method of letting him in it will be cheaper.

The President:—I do not like to take issue with the gentleman, but his statement that the Registry Bureau has been self-supporting the last year, is an error.

Mr. Cheesman:—I simply state what was read.

The President:—That question was considered by your Board of Control very carefully, and the opinion was closely divided.

The amendment offered by Mr. Cheesman was then adopted, and the resolution as amended was also adopted.

The following resolution was then read by the secretary:—

Resolved, That this convention reiterates its conclusion of former years, that the registration of a new title or trade mark should carry with it the exclusive proprietorship in the same for use in all lines of the registrator.

The President:—This is submitted by the Board of Control, without its approval.

Mr. Peters:—I move that the action of the Board of Control be sustained.

Mr. Evans:—I second the motion.

The motion was duly carried.

The following resolution, offered by the Philadelphia Club, was then read by the secretary:—

Whereas, the convention of 1904 passed a resolution advocating that every club respect the pricing recommendations of neighboring clubs in the territory where such are operative; be it

Resolved, That the secretary of the as-

sociation be instructed to ascertain such pricing recommendations as exist, and communicate them to the various constituent clubs, advising them that it is the sense of this convention that the same be respected.

The President:—This resolution was submitted by the Board of Control, without its approval.

Mr. Vail:—I move that the action of the board be sustained.

The motion was seconded by Mr. Rice, and duly carried.

The following resolution, offered by the Philadelphia Paint Club, was adopted on motion of Mr. Longstreth, duly seconded and carried, the president stating that it was offered to the convention by the Board of Control with its approval:—

Whereas, The United States Census Bureau recently circulated among manufacturers a series of questions relating to the value and amount of their several products, and the internal conduct of their business; which questions (to which sworn answers were compulsory under penalty of fine and imprisonment) were of so searching and intimate a character as to be seriously inimical to the welfare of many who answered them, should their replies become in any way accessible to their competitors; and

Whereas, It is understood that the Census Bureau, upon having this aspect of the matter brought to its attention, manifested its willingness to modify the questions in the direction of a lesser invasion of privacy and asked for suggestions toward that end; be it

Resolved, That the president of the National Paint, Oil and Varnish Association appoint a committee of members to be known as "The Census Inquiry Committee," whose duty it shall be to draft a series of questions applicable to the allied trades and businesses represented in the association, and which shall as much as possible conserve the business privacy of those who must answer them; and the committee shall endeavor to have these questions adopted by the Census Bureau.

Resolved, That this committee shall have full power, if necessary, to co-operate with similar committees of other trades and businesses to accomplish this end.

Resolved, That the Legislative Committee of this association be instructed to take up with the proper authorities the matter of revising this law, with a view of mitigating its arbitrary features.

Mr. Wettach:—I move that we adjourn to meet to-morrow morning, at ten o'clock.

The motion was duly seconded and carried, and the president declared the convention adourned, to meet at 10 o'clock A. M., October 12, 1905.

FOURTH SESSION.

Thursday Morning, Oct. 12

The convention was called to order at 10 o'clock a. m. by President Field.

The President:—The first business this morning will be to listen to the report of the Board of Control with reference to matters that have been submitted.

Mr. Cheesman:—At a meeting of the Board of Control it was decided to withdraw the resolution asking for a change in Section 2, Article IV, and to allow that section to remain as it now is in the By-Laws, thus permitting individual members outside of cities where no club exists to have all the privileges of a delegate.

And it was resolved that Section 1, Article IV be changed to read as follows:—Sec. 1 Each club or organization shall be entitled to send delegates to the meeting of this association in accordance with the number of firms reported by the secretary or treasurer of the club to the National treasurer at the time the annual dues are paid, and the number of delegates shall be as follows:—One delegate for ten firms or less; two delegates for more than ten and not more than twenty-five firms; one delegate for each additional twenty firms, and for organizations of national character entitled to membership in this association, one delegate at large for each organization.

I move these resolutions be adopted.

Motion duly seconded and carried.

Mr. Cheesman:—At a regular meeting of your Board of Control the following resolutions were drafted and unanimously adopted by the board, and are hereby submitted to you for your favorable consideration.

Resolved, That Article III. of the by-laws be stricken out and the following new article be inserted in its place.

ARTICLE III.

Section 1. Each club or organization composed of ten firms, or less, shall pay as annual dues the sum of $30, and an additional sum of $3 for each individual firm, co-partnership or corporation represented in such club in excess of ten firms. And the names of firms (not individuals, but firms) comprising each club shall be reported to the treasurer when the payment of the annual dues of $3 per firm is made, and this payment shall be made on all firms so reported.

Sec. 2. For the purpose of increasing our membership and promoting the growth of the association, the Board of Control shall have power to admit at their discretion and under such conditions as they see fit, any State or Territorial organization not embracing local clubs, and who otherwise are eligible to membership.

Sec. 3. Each individual member shall pay as annual dues the sum of five ($5) dollars.

Sec. 4. Honorary members shall be exempt from payment of dues.

Section 5. Annual dues shall be paid to the treasurer on or before Nov. 15, of each year.

Mr. Cheesman:—I move you, Mr. President, that these resolutions be adopted.

Mr. Longstreth:—I second that motion.

Mr. Peters:—The use of the word "firms" there is liable to more than one construction. It is not intended that individual persons in business by themselves without partners shall not pay dues, is it?

Mr. Cheesman:—Oh, no. I thought that would be considered a firm. I don't know what else you would call it.

Mr. Peters:—I think "firm" means more than one person.

Mr. Cheesman:—We want to make it as plain as possible.

Mr. Peters:—I simply throw out the suggestion, and Mr. Cheesman suggests that we insert the words "firms or individuals doing business by themselves."

Mr. Vial:—That would hardly cover the case. You could be shutting out corporations. Would it do to put in there "business house?"

Mr. Ferguson:—I would suggest that they say "each individual firm, copartnership and corporation."

The President:—There are some advantages in having a lawyer connected with this association, and we are obliged for the suggestions.

The motion was then duly carried, the first section being changed to meet the suggestion made by Mr. Ferguson.

The President:—I would announce that the Iowa Paint, Oil and Glass Association has been elected to membership in this association, by action of the Board of Control; also, the Ohio Marble Company, of Piqua, have taken individual membership. That brings our membership up to 632, at the last count. (Applause.) Have you any further resolutions from the Board of Control?

Mr. Cheesman:—With regard to the recommendation in the President's report, concerning the placing of a limit upon the expenses to be incurred for the entertainment of this association at its conventions, the Board of Control heartily indorse the idea, and suggest that a new section be added to Article XXI of the By-Laws, to read as follows:—

"Sec. 3. The Entertainment Committee shall limit the expenses of entertaining the association at its convention to a sum which shall not exceed by more than 50 per cent. the amount raised by the regular assessment as specified in Sec. 2."

I move the adoption of the resolution.

The motion was seconded by Mr. Sulzberger, and duly carried.

Mr. Cheesman:—The Board of Control, with reference to the suggestion of the president that the by-laws be amended so as to provide that kindred organizations be permitted to nominate from their membership the chairman of the committee covering the subject they represent, do not deem it wise to recommend such a change in our by-laws, but do recommend that the incoming president be instructed to request both the Paint Grinders' Association and Varnish Makers' Association to select a member of their associations (who, of course, must also be a member of this association) to act as chairman of the incoming Paint Grinders' and Varnish Makers' committees. I move the adoption of the recommendation.

The motion was seconded by Mr. Sulzberger and duly carried.

The President:—The report of the Committee on Membership was left over, for action by the Board of Control. We are now ready to take action upon the report.

On motion of Mr. Sulzberger, duly seconded and carried, the report of the committee was adopted.

The Secretary:—The treasurer's report has a recommendation that the constituent clubs of the association be requested by the secretary and the delegates to this convention to change their fiscal year to correspond as closely as possible to that of our association, holding their annual meeting at a time just prior thereto.

The President:—The recommendation met with the approval of the Board of Control, and is so presented, for your action, to the convention.

Mr. Clapp:—I move that it be accepted and placed on file.

The motion was seconded by Mr. Arnold, and duly carried.

The President:—Is the Committee upon Credits and Collections ready to report?

(For Report See End of Proceedings.)

Mr. President:—No other member of the committee is here. The report was referred back to the committee, and necessarily I have no power to act without conferring with the others. The report was very wisely acted upon in that way. The committee intended to have a conference here before the session of the convention, but Mr. Gould, the last minute, sent me word he would not be able to be here. I think the only thing that can be done is to either leave it with the committee or send it to the new committee. There are a number of things which should have more attention before they are reported to this organization for action. The information that was gotten was gotten late, and the whole committee did not have an opportunity to look into it, and I do not believe that the matter is in shape to be intelligently acted upon by the committee at this time.

There is one matter, however, that I referred to in a supplemental report, that I should be very glad to have the convention take up, and that is, a resolution that this convention go on record as recommending and assisting to pass a bill in Congress which amends the laws relating to the mail, making it a misdemeanor for a man to send you a signed, written statement in regard to his financial condition the statement being false. It is a matter that is being fostered largely by the Baltimore Credit Men's Association, and has subsequently been taken up by the National organization. You are all well enough experienced to know that if you get such an amendment, and these statements come through the mail to you, misrepresenting their financial condition, upon which you then sell goods, you are then able to hold some of these people, and there would be greater care in that class of information.

Mr. Sulzberger:—Is that in the majority report?

Mr. Ferguson:—In the minority report. If the secretary has the report there, and would read that resolution. I think that part could very wisely be acted upon.

The Secretary then read the section of the report referred to, as follows:—

The committee recommended the following resolution:—

"Resolved, That the National Paint, Oil and Varnish Association pledge itself and its support to the National Association and to any other association in its endeavor to have indorsed and passed an amendment to Section 5480, of the Revised Statutes of the United States, as follows:—

'Any person who shall, for the purpose of obtaining or aiding to obtain, any money, credit, goods, wares, merchandise or other things of value, for himself, or for any other persons, firm or corporation, and with intent to defraud, place or cause to be placed in any postoffice or other receptacle for mail of the United States, to be sent or delivered by the said Postoffice establishment, any false or fraudulent statement of his financial condition, or of the financial condition of such other person, firm or corporation, or of the amount or character of his, their or its assets or liabilities, knowing the same to be false, shall, upon conviction, be punished by a fine of not more than $1,000 or by imprisonment for not more than five years, or by both such punishments, at the discretion of the court.'"

The President:—Do you offer that resolution?

Mr. Ferguson:—I do, Mr. President.

Motion seconded.

Mr. Rice:—Is it not true that if a man makes any false representation, and buys goods, that you can take action against him regardless of any law of this kind?

Mr. Ferguson:—Of course, where a man makes a false statement, on general principles he is liable, but it has been our experience that where we can get Uncle Sam after a man who makes a false statement, using the mails in doing it, you bring into action the national revenue, without calling upon the individual to prosecute it. We now have three men serving time in Illinois and Wisconsin penitentiaries whom we have been able to put there on account of the use of the mails in this way in getting goods, and it never would have been done had it not been that Uncle Sam took charge of it, and paid the witness fees, for bringing them from all the way through the East, and part of the Central West. The average statement, after it becomes six months old, made under the conditions it is made frequently, is of no value at all. Nearly all the States have a different law in regard to what constitutes a false, fraudulent written statement. So, you very seldom get a conviction or make a recovery on a signed written statement. But under this form, I think it will add greatly to the suppression of these robbers who are going around over the country and getting merchants' goods.

Mr. Vial:—As this portion of the report has not had the consideration of the full committee, I would move as an amendment that the whole matter be referred back to the present committee, with instructions to put the matter in more definite shape as soon as possible, and to send the whole matter to the secretary, in order that it may be placed, as matter of information, in the hands of the new committee for action during the coming year, as the best way of giving it proper consideration before it comes to the convention.

Mr. Sulzberger:—I second the motion.

Mr. Ferguson:—I appreciate that the other members have not approved this resolution, but there is going to be such an effort made the coming winter in Congress to have this bill passed that I feel that this organization should at this time give this movement its moral support, and if you will allow, I will offer it as an independent resolution, so that the other members of the committee may not be embarrassed and that I may not be presumptive in what I am doing.

The President:—I think the gentleman's statement that it is an independent resolution is sufficient.

Mr. Vial:—If it comes in this way, if the second will allow, I will withdraw the amendment if it comes up as a separate resolution.

Mr. Sulzberger:—I will withdraw the second.

The resolution offered by Mr. Ferguson was then adopted.

Mr. Vial:—I will now make a motion that the report be referred back to this committee, and when it has had such consideration as this committee can give it that it may be sent to the secretary, in order that, as a matter of information, it may be placed in the hands of the incoming committee.

The motion was seconded by Mr. Sulzberger and duly carried.

Mr. Cheesman:—I move for a reconsideration of the vote on the resolution just passed with reference to Article XXI., Section 3.

The motion was seconded by Mr. Andrews and duly carried.

Mr. Cheesman:—In place of the section as read I move the substitution of this section:—

"Section 3.—Any other funds contributed for the entertainment of the association shall be expended under the direction of the Entertainment Committee, but shall not exceed 50 per cent. of the regular assessment as specified in Sec. 2, unless the Board of Control rule otherwise."

The motion was seconded by Mr. Andrews and duly carried.

The President:—The Chair will announce the committee authorized in the resolutions offered by the New York Club, to petition the Secretary of the Navy with reference to the use of American paints upon American vessels, to be composed of Norris B. Gregg, St. Louis; George W. Fortmeyer, New York; A. M. Parks, Philadelphia.

The committee authorized to be appointed by the Chair, on the resolution of the Philadelphia Club, with reference to the census inquiry, the Chair will turn over to the incoming administration, as it refers to matters ahead of us.

Mr. Arnold, is your committee ready to report with reference to Naval Stores?

Mr. Arnold:—Yes. With reference to the Naval Stores report, we point out to you that these advances have been going on for the past seven years, and is about time for such an organization as this to urge the government on in its forestry work and its protection of the young trees. We suggest the following resolution:—

Resolved, That the National Paint, Oil and Varnish Association heartily indorses the past and present work of the Forestry Commission in the protection of the young pine trees in the South, and urge continued aggressive work along this line. If possible, it would be wise to obtain the co-operation of the States interested, urging prompt and firm action for the natural protection of their naval stores industry by stringent laws with severe penalties attached.

We recommend that the secretary be instructed to send a copy of this resolution, if passed, to the chief of the Bureau of Forestry at Washington and to the chiefs of the Bureaus of Forestry in each of the turpentine producing States.

Mr. Peters:—I move the adoption of the resoltuion.

Mr. Longstreth:—I second the motion.

Mr. Andrews:—Would it not be better to say "pine trees" instead of "young trees?"

Mr. Arnold:—If a pine tree becomes three years old it takes care of itself.

Mr. Andrews:—Isn't there a good deal in the way they scarf the old trees, in the way of protecting them?

Mr. Arnold:—No. If a young tree is not taken care of against fire and cattle it is destroyed, and there is no continued growth. The young trees do not continue to come.

Mr. Andrews:—You want to keep the old trees from fire. If you eliminate the word "young" it would cover the whole of it.

Mr. Arnold:—They cannot protect the large trees, but that is all right.

Mr. Arnold amended the sentence in question to read "Protection of the pine trees in the South."

Mr. Evans:—Does this resolution provide for any restrictions in the methods of boxing?

Mr. Arnold:—None at all.

Mr. Evans:—The method of boxing old trees is quite as important as preserving young trees, because a large proportion of the operators so tap the trees that after two or three years they are dead, anyhow.

Mr. Andrews:—I think the resolution as now read covers that.

The resolution was then adopted.

Mr. Arnold:—Then we offer the following as an answer to this letter in reference to turpentine:—

Dear Sir.—In answer to your circular letter in regard to wood turpentine, dated April 2, 1905, the National Paint, Oil and Varnish Association, at its convention held in Chicago, Oct. 10, 11 and 12, 1905, instructs its secretary to write to you as follows:—

The solvent power of wood turpentine is not less than gum spirits.

If the gravity is the same it dries the same.

It makes just as good varnish.

It works just as free.

Its covering power is the same.

The objections are purely a question of odor, uniformity and the elimination of the oil, poisons and acids. If it were made of uniform quality free from oil and poisonous acids, then it would be simply a question of educating the public on the feature of a different odor.

I move that the Secretary send this letter.

The motion was seconded.

Mr. Andrews:—It strikes me that putting in the words "oil and acids" is really superfluous, because it is the oil and acid that makes the odor which is the only objection to the use, and by putting those words in you only create in the minds of those already prejudiced additional material to keep them in that frame of mind. If you use simply the word "odor" you cover the whole thing, without bringing anything

further into the minds of those who do not know much about wood turpentine.

Mr. Arnold:—I think Mr. Andrews is not quite correct, because, in some fifty samples, which have been gone over carefully, there were only two free of poisonous acids, so that a man working in the turpentine and washing his hands or arms with it would not be affected. The trouble is, the product is not uniform. It can be and has been made, if carefully made, free from these acids, but it then has the odor, still, different from the other. It wouldn't be as strong, it would be sweeter, but it would still have an odor of its own. It would not be the same as the gum spirits.

Mr. Andrews:—You already have in your resolution the word "uniform," and if you have a uniform product, the odor would be the only thing.

Mr. Arnold:—That is all. Just leave it, "the objections are purely a question or odor and uniformity."

Mr. Day:—Some people that are making this do not remove the acid thoroughly.

Mr Arnold:—It is on the market for sale.

Mr. Andrews:—But we do not use it satisfactorily.

The motion was then duly carried, the letter having been amended by Mr. Arnold, as stated by him, the following words being stricken out: "And the elimination of the oil, poisons and acids.'

Mr. Arnold:—We recommend the appointment of a committee of three, to take up the question with the Attorney General, as to whether the present Naval Stores conditions are being carried on in restraint of trade, and whether it would warrant any action by his department, and if so, to urge him to proceed in the matter. I would make a motion to that effect.

The motion was seconded by Mr. Sulzberger and duly carried.

The President:—Are there any reports of committees which have not been presented? Has anyone any resolutions to offer, or any business to present?

Mr. Fortmeyer:—I presume we all remember an accident that recently occurred on the Pennsylvania Railroad, where, in a collision involving a freight train, an explosion of dynamite created great havoc and loss of life. Speaking for the New York delegation, it has come to our knowledge that that railroad has since adopted the practice of labeling varnish as dangerous and combustible. So far as I know anything about varnish, it does not have those qualities at all, and it is inimical to our interests, and should not be continued. We deem it of sufficient importance to warrant this convention taking some action, and, if you please, by having a reference made, perhaps, to the Committee on Transportation, to look into the matter and make a proper report. The practice, if continued with varnish, might easily and very naturally be extended to other commodities equally as harmless. I move that this question be referred to that committee, to report later to the convention.

Mr. Andrews:—And that the Transportation Committee be requested to at once take the matter up with the Pennsylvania Railroad Company

Mr. Fortmeyer:—That is my intention.

Mr. Schumann:—I can procure one of the labels, so they can see what it looks like.

Mr. Andrews:—It is very important to the varnish trade, and ultimately affects the paint trade. The Pennsylvania Company affixes this label after the goods are received in the freight house, and when you ship a manufacturing concern a barrel of varnish, and it is being rolled into their plant, and some insurance inspector happens to see it, the word "dangerous" is large, and they go at once to the buyer and want to know what it is that they are rolling in that is dangerous and inflammable, and up goes their insurance rate. This is very important.

The motion was duly seconded and carried.

The President:—I will ask the secretary to read two communications received from Detroit.

The following letters were then read by the secretary:—

Executive office, Detroit, Mich.
George P. Cody, Mayor.
Fred W. Smith, secretary.
September 22, 1905.

National Paint, Oil & Varnish Association:—

Gentlemen:—On behalf of the City of Detroit, I extend to you a cordial invitation to hold your 1908 convention in this city.

On account of its location and natural beauty, Detroit has in the past been selected as a place of meeting by a greater number of conventions than any other American city, and all conventions have been hospitably entertained. I am sure I can speak with emphasis when I say that Detroit will welcome the National Paint, Oil & Varnish Dealers' Association most heartily and will leave nothing undone which will make their visit to this city enjoyable. Very truly yours,

George P. Codd, Mayor.

September 22, 1905.

To the National Paint, Oil & Varnish Association:—

Gentlemen:—The Detroit Board of Commerce and its Convention Bureau unite with the local members in extending to your organization a hearty invitation to honor this city by coming here with your important convention of 1908. Detroit's location is a central one, with ample transportation advantages. Facilities for the comfort, convenience and pleasure of visitors are complete. The city's natural beauty has been increased by attractive buildings, boulevards and parks. A cordial welcome is always given to visitors. Cordially yours,

C. F. Bielman, President.

The President:—No action beyond proper acknowledgment is necessary with reference to these communications, unless the convention desires to refer them to the incoming committee on nominations.

Mr. Andrews:—I move that they be so referred.

The motion was duly seconded and carried.

Mr. Morton:—At the March meeting of the Paint and Oil Club of New England it was unanimously voted that their delegates extend to this association a cordial invitation to hold their next annual convention in Boston. I believe it has been customary for this association to alternate their meetings, first in the East and then in the West, and it seems to me a very good idea to continue that practice, and I hope that the delegates will decide to come to Boston next year. Boston needs the convention, I think. It hasn't had the convention for a number of years, and I think it would stimulate our club and be a great help to our local organization. (Applause.)

The President:—The association, I am sure, welcomes the various invitations from local clubs to hold its convention next year and future conventions in their cities. It is evidence of the growing intereset in the association as well as its influence.

The president called for the report of the Nominating Committee, which was read by Mr. Caspar, as follows:—

Report of Nominating Committee.

Your Nominating Committee beg to report, as their unanimous choice, the following named gentlemen as officers for the coming year:—

President, C. D. Wettach, Pittsburgh.
First vice-president, Ira D. Washburn, Cincinnati.
Second vice-president, Mr. Arthur Sommers, New York.
Secretary, Louis L. Drake, New York.
Treasurer, J. Frank Boydell, Detroit.
Auditor, Edwin Wolff, Philadelphia.

DIRECTORS.

Paint, Oil and Varnish Club of Chicago, George E. Watson.
Paint, Oil and Varnish Club of New York, S. M. Evans.
Paint and Oil Club of New England, F H. Newton.
Paint Manufacturers' Club of Philadelphia, A. M. Parks.
Cincinnati Paint Club, George C. Wuenker.
Paint, Oil and Varnish Club of Pittsburgh, Edward Thompson.
Detroit Paint, Oil and Varnish Club, F. B. Pierson.
St. Louis Paint, Oil and Varnish Club, J. W. Bray.
Kansas City Paint, Oil and Varnish Club, H. S. Lynn.
Buffalo Paint, Oil and Varnish Club, A. B. Wright.
Louisville Paint, Oil and Varnish Club, Stuart McDowell.
Paint, Oil and Varnish Association of Milwaukee, D. Hecht.
Paint, Oil and Varnish Club of Colorado, L. T. Meinhart.
Cleveland Paint, Oil and Varnish Club, Fred A. Glidden.

Your Nominating Committee beg to report, as their unanimous choice for the next convention, the city of Pittsburgh. It is the sentiment of your committee that the convention need not necessarily be the home city of the presiding officer, yet in view of the complimentary and urgent invitation of the Pittsburgh Club and the city of Pittsburgh, your committe recommend that city as the next place of meeting.

Mr. Sulzberger:—I move that the secretary be instructed to cast one vote, the unanimous vote of the convention, for the election of the gentlemen named by the committee.

The motion was duly seconded and carried.

Mr. Sulzberger:—I move that the recommendation of the committee as to our going to Pittsburg be adopted.

The motion was seconded by Mr. Andrews and carried.

The President:—The secretary announces that the ballot has been cast, in accordance with the action of the convention, and I now declare the gentlemen named duly elected.

The time seems to have arrived when I shall have to step down and out. Before presenting your new president, however, I wish to take this opportunity to express my gratitude for the loyal support that has been extended to the administration during the past year. Good fellowship, being one of the objects of this association, has been emphasized by the manifest effort and endeavor in all sections and on all sides during my period of office. Your patience during this convention is but a kindness added to the many that I have received at your hands, and the honor of having served as president of this association I shall cherish as long as I live, and I hope to live and see this National Association go on fulfilling its mission of usefulness for many years. I shall ever be ready to do my part. (Applause.) I will request Mr. George M. Vial and Mr. John M. Peters to escort Mr. Wettach to the chair.

The president-elect, Mr. C. D. Wettach, was escorted to the chair, and President Field said:

Mr. Wettach, permit me to be the first to congratulate you upon the great honor that has been conferred upon you to-day. Gentlemen of the convention, I have had many pleasant duties to perform during my term of office, but the most agreeable seems to be left to the last in introducing your president.

The president-elect was received with applause, and addressed the convention as follows:

Gentlemen, words at this moment fail to express how deeply I appreciate the honor which you have just conferred upon me in electing me president of your organization. I have been trying for the last few moments to discover in my career and in my connection with your association any conspicuous services which I have performed, and I cannot discover a single one. I am beginning to believe that the story told by Mr. Field at Buffalo applies to me, when he said that he was simply in it for the ride. It seems to me that I am in it for the same thing. I take it, however, that it is a compliment paid to the Pittsburg Club and to the city of Pittsburg, that monitor of the industrial world which sits at the head of the Ohio River, from whose gateways are sent through the width and breadth of this land, yea, to the uttermost ends of the earth, the commodities which tend to make the human family happier and to advance civilization. I am sure, when you convene with us a year, hence, that you will find a cordial welcome, that you will spend a pleasant time, and that you will leave with pleasant memories. It is not my desire at this time to make any speech; in fact, I do not believe I could if I wanted to, because I would feel much like the young minister who was called before a class of students, and, buttoning up his coat in great shape and puffing out his chest, said, "Gentlemen, what do you want me to speak on," and a fellow in the front row says, "Well, what do you know?" I confess I know very little; so I think I will not attempt to say anything. I can only reiterate that I thank you very much for the honor. I ask your cordial support, and will endeavor to conduct the affairs of the association to the best of my ability. I thank you. (Applause.)

President Wettach called upon Mr. Ira D. Washburn, elected first vice-president, who responded, saying:—

I thank you very much for the honor conferred. When I look at the president and the gentlemen who have acted in that capacity for the past years, I can only feel my own misgivings. I know, from the acquaintance and work in the convention that I have had with Mr. Wettach, that I will be called upon to do very little in my position, for I know he will do the work so acceptably that very little will be left for the vice-president to do. I feel that this is a compliment to the Cincinnati Club, and I desire to say that it has no superior, in all the organizations. It ranks, I believe, among the first in work and character, of all the paint clubs represented here. I thank you again for the honor. (Applause.)

Mr. Arthur S. Somers, elected second vice-president, was absent from the convention hall when called upon.

The President:—I am sure we shall all be pleased to hear from our efficient secretary, Mr. Drake. (Applause.)

Mr. Louis L. Drake, re-elected secretary, responded, saying:—

Mr. President and gentlemen of the Paint, Oil and Varnish Association, I want to thank you heartily for this honor that you have again conferred upon me, and I simply take it as an expression of your endorsement of what I have tried to do rather than what I have actually done. I can only say, in conclusion, that I will continue to strive during the coming year, as I have in the past two, to put this association where I think it should be. I thank you again. (Applause.)

The President:—I will call upon the gentleman, who has handled your finances in the past year and who is certainly capable of making a small amount of money go farther than any man I have ever come in contact with.

Mr. Boydell responded, saying:—I thank you kindly for the honor conferred upon me for the third time. I appreciate the honor and will try to perform the duties of the office in the future as I have in the past. I trust the convention will look with favor upon the request of the citizens of Detroit to hold their convention at that city in 1908.

The president called upon Mr. S. M. Evans, elected director, who said:—

I was not aware that the gentleman of the Board of Control could make any remarks which would be apropos of anything at this time. In representing New York, however, I feel that the personnel of the Board of Control, outside of our own representation, is such that the association may feel that its work will be conscientiously done, and, so far as New York goes, we will do the very best we can.

The president called for responses from the remaining directors-elect. Those present in the hall at the time addressed the convention as follows:—

Mr. Parks:—Gentlemen, I wish to say that I appreciate the honor conferred in representing our club, upon the Board of Directors. The association has been led to expect speakers to represent them, from Philadelphia, and I am sorry that I shall be obliged to disappoint you in that particular. The members of the Philadelphia Club, I presume, selected me to come here because they perhaps knew that I had lived here for some years and could therefore keep out of trouble. I desire to thank you. (Applause.)

Mr. Thompson:—Allow me to rise in appreciation of the honor of being elected a director, and I also thank the members of this board for honoring me by asking to serve for the unexpired term of my predecessor, Mr. DeNoon. I am happy to know that Pittsburgh has been selected as our next convention city, and I can assure you that we will endeavor to do our best in taking good care of you, and I wish to say, in behalf of Pittsburgh, that notwithstanding it is not so great on the map as Chicago, we think we are very great in some other lises, and think we can show the gentlemen who visit the convention some industries with which no other city in the United States can compare.

Mr. Wuenker:—Gentlemen, about all I have to say at this time is that I thank you for the honor.

Mr. Glidden:—I am afraid you have called upon a very poor speaker. All I can say is that I am very glad to support the gentleman in his able work. I have always said that there was enough material in Cleveland to make one of the best paint clubs in the country, if we all got busy. Mr. Day was the delegate to come here, and I would like to have him help me out in my speech.

Mr. Day:—I do not know what Mr. Glidden has against me. I have always counted him as one of my friends. The Cleveland Club joined the association by unanimous vote, and I think they will appreciate the honor you have done them in voting Mr. Glidden a director. We all hope to be with you at Pittsburgh next year. As Pittsburgh is not very far from Cleveland we sometimes call it a suburb of Cleveland, and they sometimes call us a suburb of Pittsburg. So I think we will have a good representation there, and will endeavor during the year to indorse the acts of Mr. Glidden.

After an announcement by the chairman of the Entertainment Committee, Mr. Washburn moved a vote of thanks to ex-president Field, and said:—

I believe that every member of this organization, the delegates and all who have attended this convention, have appreciated the very efficient manner in which the ex-president of our association, Mr. Field, has presided over our deliberations and cared for us; and I now move to offer a vote of thanks to him for his efficient services.

Mr. Longstreth:—I second that motion, most heartily.

The President:—I am sure it gives me great pleasure to put this motion.

Mr. Sulzberger:—I move that we make it a rising vote.

Mr. Longstreth:—I second that motion.

A rising vote was then taken.

The President:—Mr. Field, you have the rising vote and thanks of this association.

Mr. Field:—Gentlemen, I most sincerely appreciate your action.

Mr. Washburn:—I really thought, before my friend Mr. Morton, of Boston, took the floor, that it was a foregone conclusion that everybody in the association knew that Cincinnati was to get the convention in 1907, and I want to impress upon you now that Cincinnati does not feel like relinquishing her right to the convention any further. We have done so for a number of years. We want to invite you there for 1907, in a very cordial way, and we want the members of the association to get ready for it during the coming year. We would be glad to give way to Boston if we thought it expedient at this time, but we cannot see our way clear just now.

The President:—I am going to take the liberty of calling on one of your ex-presidents, Mr. Vial.

Mr. Vial:—I thank you for the compliment, but really haven't anything to say at this time except to express the very great pleasure it has been to every one of us Chicago men to have so many of you with us and to express the hope that you have thoroughly enjoyed the convention, and that it has been something of the pleasure to you to be here that it has been to us to entertain you . (Applause.)

The President:—I am sure it would be a great pleasure to hear from our friend, Mr. J. M. Peters, one of your ex-presidents.

Mr. Peters:—I doubt very much whether it would be a great pleasure to anybody. I have been heard from considerably in this last convention. I wiggled myself into the chair which you now occupy, chiefly by keeping my mouth shut, and working, and at this convention I have been heard so much that I doubt if I could be elected to anything in the organization hereafter, and as I am going into training for an office some time later on, I shall decline to make any speeches. (Applause.)

The President:—I do not think any convention would be complete without the presence of the next gentleman whom I will call upon, Mr. Andrews of Buffalo.

Mr. Andrews:—I was just about to rise and ask the privilege of making the following motion, that we give a rising vote of thanks to the committee, Messrs. Brigham, Watson, Hirst and Evans, for the splendid entertainment which we all have enjoyed; and I would call special attention to the performance of Tuesday evening, "Mrs Jarley's Wax Works," which was one of the most unique features which we have ever enjoyed at these conventions. We want those artists who have spent so much time and taken so much trouble for our pleasure to know that we

appreciate their efforts very much. At the same time I want to call attention to the efficient card system which was put into effect by Mr. Evans, which has made the registration and the handling of the delegates so easy for the entertainment committee. I move you that we have a rising vote of thanks to the entertainment committee for their work.

The motion was seconded by Mr. Longstreth and carried by a rising vote.

Mr. Andrews:—I wanted to include in this motion a vote of thanks to the entertainment committee of ladies, but Mr. Peters can do the ladies so much better justice than I can, and he seems so desirous of making this motion, feeling that I might usurp the privilege, that I will now yield the floor to him.

Mr. Peters:—That is very unfair. Mr. Andrews has been working for the last thirty minutes on this, but as he has failed to remember the ladies, I would move, with the utmost brevity, but none the less sincerity, that the thanks of the association be hereby tendered to the Ladies' Entertainment Committee for the self-sacrificing labor that they have devoted to the pleasure and comfort of the ladies of the organization.

The motion was duly seconded and carried.

Mr. Field:—I move that the thanks of this convention be extended to the trade press. We should not adjourn without recognizing by a vote of thanks the very efficient way in which they handled the reports of this convention. We depend upon them largely for the distribution. We know that they are modest men, but all the same I think they are deserving of our thanks, and I make that motion.

The motion was seconded by Mr. Andrews, and carried

Mr. Andrews:—I have a suggestion to make which I believe would be for the benefit of each local organization, as well as the national, and that is that the secretary of each of the local clubs be requested to send detailed reports of their monthly meetings to the trade papers, with the request that they publish the report in full, if possible, as this creates quite an unusual interest in the local clubs, as well as the national organization. I make that as a motion.

Mr. Washburn:—I would like to second that. We have discussed that matter in the Cincinnati Club, and I have brought the matter up there a number of times. That meeting will be reported. I think it a very good idea.

The President:—The suggestion is a very good one. The Pittsburgh Club has been indeavoring to carry that out for some time. We send to the various trade papers the reports of our meetings, etc. They are largely cut down, I presume, when they are ready to go to press, but nevertheless it shows some interest and activity is being shown in these local clubs.

The motion was carried.

On motion duly seconded and carried, the convention adjourned.

Report of Committee on Credits and Collections.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

Your committee must confess at the outset that it has labored under difficulties because of lack of interest in this matter by the members and some of the officers of the constituent clubs. We have written to every one of the clubs for information in regard to these matters, especially as to the workings of the credit bureau if any in such club, and the replies have been the exception rather than the rule.

The credit bureau regulations which were in vogue in Philadelphia and Pittsburgh were substantially adopted by the Paint, and Oil Club of New England last spring, and the results have been fairly satisfactory to the subscribers, although not nearly the full success has been attained as would be the case were there full confidence in each other, and all take hold and furnish information in regard to payments made by customers to the end that poor paying ones and "dead beats" should be weeded out.

Possibly this can never be accomplished the way mankind is at present constituted, because it may not be human nature for a concern to whom a large sum is owed by a very slow customer to give away to a competitor information damaging to that customer while the indebtedness is so large, for the reason that a customer might get provoked and make it even more difficult for the creditor to collect his dues, or injurious reports might hurt his business so that he would be compelled to make an assignment.

It is said that the plan has worked most excellently in Philadelphia—where the club is composed almost entirely of manufacturers, there being very few jobbers, if any, and all being of large business dealing, so that the smaller men are not inquired about so much as would be the case in other cities where the jobbers are included, this bringing in the smaller painters. It is quite probable in the club mentioned that if the bars were thrown down and membership made open in general there would be serious doubts as to the maintenance of the bureau on the present basis.

The Cincinnati Paint Club has established a method of making inquiries as to the credit of debtors through a special secretary who would circulate inquiry blanks (or through special call) among all the members of the club, which would be filled out and returned to the secretary, who would collate the information and report same to the party making inquiry. Theoretically, this would seem to be a most excellent arrangement, but the possible objection comes in, as stated before, whether or not one concern would wish to give information to his competitors as to these matters.

The Detroit Paint, Oil and Varnish Club some six months ago decided to adopt a plan which was purely local in character, and confined exclusively to members of their club. Their method is very simple, each of the members giving the others the benefit of his experience through the Credit Clearing House system, which has headqaurters at Cleveland, and so far as known it has worked satisfactorily up to the present time. This concern started in first with the National Shoe Wholesalers' Association, which had started in to do business by their own committee, but finally concluded to have an outside party conduct the business, as they would be in touch with other lines of trade who might be selling the shoe trade, as well.

The Credit Clearing House about the first of this year began to organize the paint, varnish and kindred trades, and the result of the effort has developed a membership of fifteen houses in Chicago, ten in Pittsburgh, about a dozen in Detroit—including dealers as well as manufacturers—and seven houses in Cleveland.

The Ohio Paint Association also became affiliated, as well as prominent concerns in the same line in Milwaukee, Cincinnati, St. Louis and other points.

The Chicago Paint Club has had a bureau called the "Protection Record," which has been under the charge of a paid attorney, Mr. E. C. Ferguson, who is a member of that club, and also a member of this committee. The mode of operation will be given and fully explained by Mr. Ferguson in a special or supplementary report, and he will also give his idea in regard to the general subject, with such recommendations as may seem to him proper

As previously stated, some fifteen or sixteen houses in the paint, oil and varnish trade in Chicago organized for the interchange of credit information, and desiring a perfectly impartial secretary they chose the Credit Clearing House in that capacity. The work is done, however, practically as laid down by the Advisory Committee, composed of five members taken from five representatives of the membership, practically all manufacturers and probably very nearly akin to the plan in operation in Detroit.

The New York Paint, Oil and Varnish Club has at present no service of this kind under its auspices. Several years ago one was in existence and a number of the members of the club derived considerable benefit from it, but through lack of general interest and lack of co-operation it finally gave up the ghost.

Several houses in the paint and varnish lines in New York City, independent of club membership, have a plan now in operation called the Credit Bureau of the New York Paint and Allied Trades, with offices at 99 Nassau street, New York City.

There are at present twelve directors in this organization, comprising manufacturers of white lead, zinc, paints, varnishes, brushes and linseed oil. It is a regularly incorporated concern under the laws of New York, and each member is required to buy one share of stock at a par of $25, and pay the annual dues and submit and comply with all the by-laws of the corporation.

Applications for investigations are made by subscribers on regular blanks provided for the purpose, and every day there is issued from the secretary's office a list of names with request for reports as to payments, etc., from the different subscribers. These reports are returned on blanks issued for the purpose, giving practically if desired a transcript of the ledger account, or such comments as the subscriber may think wise under the circumstances.

Thus far this plan seems to have worked fairly well, but it is too short a time to judge of it intelligently, and naturally if the plan were extended with larger membership, the results would be still more promising. The originators of this plan seem quite enthusiastic in its favor and undoubtedly more will be heard from this organization and its system the coming year.

The Paint and Oil Club of New England, as previously stated, voted to adopt a system similar to what has been in operation for several years by the Philadelphia Club, and there were some twenty-eight members of the trade subscribers to this agreement at the time of its adoption in April of this year. The design was for the members to report the names of customers in five classes, with initials after each of the separate classes, for instance:—

(a) Credit refused or discounted.
(b) Account placed with attorney.
(c) Very slow pay.
(d) They pay excessively.
(e) Special—meaning information of value to other subscribers.

It is expressly stated that this is not a black list and none of the subscribers are debarred from selling any whose names appear in the book. The plan, though limited to the undesirable class of customers, is excellent, but its practice thus far has not been so satisfactory as was hoped for, because of lack of interest of some of the members, who have not as yet presented any names, the dominant reason undoubtedly being what was stated in the first part of this report—indisposition to give away one's business. A combination of this system with the plan of inquiry now operative in New York might be the ideal plan.

One thing is sure and that is something ought to be done to cull out those who seek credit and who are utterly unworthy of same. At present these men (and their name is legion) are simply getting their living first from one paint dealer and then from another, oftentimes the manufacturers contributing a good share toward their support. Especially is this true of new manufacturers and dealers who solicit trade in parts of the country where they have little or no business, and the very lamentable lack of justice in the laws as made and executed helps this class of legal tramps in their peculiar method of getting a livelihood.

Not only are the jobbers and manufacturers sufferers in this respect, but perhaps the largest sufferers are the local dealers themselves, who give long credit in the stress of competition, and very often credit unwisely. This makes the smaller dealers in the country slow pay, and finally in many instances renders them insolvent as well, and then the dealers and jobbers make another loss.

All of this is preliminary to the suggestion of this committee, that it seems to be an imperative duty of the association to take such action as will force its members to adopt a higher standard of credit, both in the class of trade to be sold and the insistence of more prompt compliance with the terms of sale, and a recognition and observance of ordinary rules of business, especially relating to treatment of drafts with notice and other respectful requests for settlement.

One man, one concern, one club, or association cannot avail much, but co-operation especially when it is done in a whole-hearted manner, will avail much.

It is fashionable in these times to rail against trusts and combinations, but it is only fair to say that one good at least may come out of such organization, and that is, independence in forcing their customers to live up to certain terms in regard to payment which can be attained by such a concern when there is no great competition. In other words, "there are the goods at such a price and on such time—you can take them or leave them."

They do not allow long time or extended and vexatiously troublesome accounts, and in this way they can obtain the best customers, leaving the poor men for outsiders or competitors who seem to think they are not in a position to exact the prices or terms of those who control the business.

Credit is undoubtedly essential to carrying along business whether it be personal, mercantile or State, but it probably is one of the most abused agencies of so-called civilization, and to-day the man who steals is very foolish, when he can so easily buy his goods and not pay for them.

While many of the collection agencies are excellently managed, and by worthy attorneys, yet in many instances they seem to be utterly helpless, they saying that it is impossible to squeeze water out of a dry sponge, and they wonder why the paint business gives credit to so many worthless people.

We wish to make this report as strong as possible in this direction, hoping that some action may be taken by the National Association or its constituent bodies looking to the curbing of credits, even if the sales are less, because it seems foolish to increase sales when there is such a large chance of the bills never being paid.

From what your committee learns in regard to a National Credit Bureau, i. e., whether or not lists as prepared by the local clubs can be interchangeable, we are pretty well convinced that such a scheme would not be feasible, certainly at the present time.

The human nature element comes in again, if an arrangement of the sort contemplated were in vogue; in fact, it would probably be more accentuated because while there would be a sort of "hail-fellow-well-met" friendly feeling between competitors in one city or locality, there would certainly be less of such disposition to give away an experience which perhaps has been dearly paid for or more especially a good customer to competitors from afar.

Take New England, for instance, which for its business is practically confined to its own territory and which has always been a sort of dumping ground for surplus stock of manufacturers in distant parts of the country, and is gradually becoming less profitable to manufacturers and jobbers in that locality for that reason if for no other. Long established manufacturers and jobbers have customers which they have sold for years, and manufacturers from distant cities come in and as they cannot sell these same jobbers and manufacturers they solicit business from customers of these same people, which perfectly legitimate and honorable makes it a difficult sort of competition to meet.

Now, to furnish these competitors with practically a list of good customers, telling them to steer clear from bad customers, many of whom have been found out to be bad at a high cost, is putting a pretty severe tax on courtesy and good nature. It is hardly offset by the perfectly honest but unavailable offer of reciprocity because very few goods are sent from the East to the Central and Western States, which is now the seat of this competition. While we would, therefore, recommend that nothing be done in the line of such interchangeable lists, we would strongly recommend the continuance of the present system of Credit Bureau as started in the various clubs, and also most earnestly urge the delegates to impress upon the members of their club that the element essential to the success of the credit bureau is that of confidence, and when this is present, co-operation will surely follow.

We are convinced that more money can be saved to the varnish, paint and oil trade by more care in granting credits with limit of amount and time, than in the matter of collection, because as our laws are at present constituted if a person does not want to pay he need not.

In this connection we wish to express our extreme dissatisfaction with the present National Bankruptcy Law—as regards its practical workings.

Careful compilation of what has been accomplished with this law would undoubtedly present figures that would be staggering. Probably 75 to 90 per cent. of the applicants for relief under the Bankruptcy Law have paid absolutely no dividend whatever. Certainly, this is true in the New England States, and of the other 10 to 25 per cent. but a very small portion has paid any dividend, and these dividends are generally very small. There seems to be no method of examining bankrupts, and many well-known merchants whom we have met would very much prefer no law whatever to that which now prevails.

There should, however, be a National Bankruptcy Law, and throughout the country possibly a poor one is better than none at all. Should we not bend our effort to the improvement of the present law, outlined below, so that creditors would receive some benefit, which they do not obtain at present?

1st. The trustee now elected does not have sufficient power and as a rule is not selected in the interest of creditors, the latter taking comparatively little interest in the cases because of the fact that the assets are generally very small, and the compensation of the trustee ridiculously small compared with the time and effort which ought to be employed in the settlement of a bankrupt estate. Furthermore the creditors take little or no interest at present because as a rule things have been "fixed" by the debtor and his attorney, the latter in very many instances practically having scooped in all the debtor apparently possessed.

2d. Any creditor should have full opportunity to examine the bankrupt or to investigate frauds, either actual or contemplated.

3d. There should be severe punishment of the debtors or conniving creditors when fraud has been discovered and traced to either party.

4th. No discharge should be granted to any bankrupt if within two years he has passed through the bankrupty courts, unless assent to such discharge is secured by nine-tenths in number and amount of proved claims.

It is plainly evident in consultation with the average merchant that there is a lively interest throughout the country in the matter of credits and collections and bad bills resulting from unwise credit.

At present manufacturers and merchants are groping in the dark, as it were, to obtain the best preventive or remedy for such evil. It is impossible at this writing to say which method of the several in use is the best, but intelligent discussion giving the result of the past year's experience, and an earlier and more thorough investigation of the subject by the incoming committee than was given by the present committee (which we are very sorry to say has been laboring under disadvantage in its treatment of the subject) will, we are confident, bring about a result one year from now which will be very beneficial to the trade at large.

Report of Committee on Fire Insurance.

Mr. President and Gentlemen of the National Paint, Oil and Varnish Association:—

Your committee appointed at the last session of this association has gone forward with its duties along the same lines as were indicated and carried out by the committee of one year ago. In order to report intelligently upon this important subject, we deemed it necessary to know as fully as possible the condition of all the risks in operation by the various members of the association.

We regret that some of the members have failed to answer the list of questions sent them, and we believe that this indifference is born of ignorance of the scope and ultimate aim of the work of this committee. It may not be amiss for us to state again the purpose of this work: It is to secure to the members of this association lower rates of fire insurance. Your committee, after most careful investigation, is convinced that a saving of 50 per cent. in premiums may reasonably be expected. In order to accomplish this result, we wish to impress the members with the fact that the co-operation of the entire membership is necessary if this problem is to be solved; it cannot be solved by two or three, or a dozen. In this connection it is interesting to note that since our association appointed a standing committee upon fire insurance, a great many other manufacturing associations have taken up the same subject and have appointed committees, some of which appear to be attacking the problem along the same lines as those adopted by your present committee.

Official statistics of the fire insurance business of the United States as conducted by stock companies, show that the expense of doing business under their methods is from 35 per cent. to 45 per cent. of the premium payments. In these excessive figures lie the true explanation of the tremendous difference between the premiums paid by the members of this association to the underwriters, and the amount received from the underwriters in payment of fire losses.

Your committee finds itself unable to accept the reasoning of the underwriters in their attempt to justify the high premiums and the excessive rate of expense in the conduct of their business. They inform us that competition is very severe, but we reply that there is no competition because the fiat of the underwriting boards controls the premium rates in every city and hamlet of the United States. When any of us have the temerity to protest against the excessive premium rates, we are told that the companies are really not over desirous of our risks anyhow, and if we want insurance the inference is that we had better keep quiet and pay up.

While the membership role of the association indicates that it has 548 members, it must be said that many of these are not manufacturers and would not, therefore, be interested in this matter sufficiently to send us data as to their risks. From the manufacturers, however, we have received 94 reports, considerably more than the number received a year ago. To the credit of the members, it must be said that many of the reports received this year showed decided improvement in the physical hazards of the risks reported upon, and from this fact the committee is inclined to believe that the work has already resulted in considerable good. We cannot urge too strongly upon the members the fact that the question of factory cleanliness is of even more importance than any of the questions asked. The adoption by the members of even a few of the requirements of the underwriters, not only decreases the liability to fire but also makes for concrete reductions in the premium rates.

As a preliminary to the essential features of this report, we desire to present a list of the questions asked, as a part of the report, and the same is hereto attached, marked "Exhibit A."

EXHIBIT A.

Replying to your inquiry of June 15, we make the following answers to the questions submitted by your committee;—

Location of factory, give city and State.....
.....Is your plant a paint, varnish, lead or a combination?.....
Amount of insurance carried upon factory building.....Amount of insurance carried upon contents.....
How much in stock companies.....
Rate of insurance.....How much in mutuual companies.....Rate of insurance.....Is factory detached or adjoining other buildings?.....
Is construction of wood or brick?.....
Are doors and windows protected by fire-proof shutters?.....
Do you have an automatic fire alarm?.....
Have you stand-pipe and hose system?.....
Do you depend upon hydrant or wells for water supply?.....Have you fire extinguishers?... .....Water or sand

buckets?.....Have you metal waste cans in department where oil, rags or waste are used?.....
Have you watchman's clock?.....
Have you night watchman?.....
Is factory lighted by gas or electricity?.....
Have you a sprinkler system or sprinkled risk?
.....What amount of fire loss (if any) have you sustained during the last five years (place amount in dollars)?.....

In last year's report the committee requested that information be given covering a period of ten years. We find, however, that very many of the large plants have been equipped with sprinklers and otherwise radically changed as to fire hazard within the ten-year period; we, therefore, deemed it advisable to base our figures in this report upon the five-year period ending December 31, 1904.

As in last year's report, we have divided the risks considered in our statistics into three classes:—

First, the modern, up-to-date plants which are equipped with sprinkler systems, automatic fire alarm, fire doors and shutters, etc. Of these there are 23 plants, in each of which may be found all of the necessary requirements under the rules of the underwriters. These 23 risks are carrying insurance amounting to $16,037,581 at a rate of 1.247 per cent.; they paid in premiums during the past five years $1,000,006 and have sustained losses during the same period of $120,200. Therefore, these 23 risks have during the past five years paid to the underwriters $879,806 in excess of the amount received from the underwriters as fire losses, or a gross profit to the underwriters of 80 per cent.

The second class includes those plants which are not sprinklered but are provided with fire-proof doors, shutters, night watchman and are generally able to answer the questions submitted by us in the affirmative. We find there are 48 in this class who have reported. These carry insurance to the aggregate of $5,107,750, paying a rate of 2.42 per cent. During the past five years their premiums amount to $617,985 and their losses $348,235; from which we deduct that this class has paid the underwriters during the past five years $269,750 in excess of their losses, showing a gross profit to the underwriters of 43 per cent.

The third class includes the ordinary risks, the committee terms them poor; they cannot answer our questions affirmatively. Of this class 23 have reported. They carry insurance to the extent of $785,682 and their average rate of insurance is 2.04 per cent., a lower rate than was shown by this class in last year's report. These 23 risks of the third class have paid in premiums during the past five years $80,195 and have sustained losses amounting to $19,300, showing that these risks have paid to the underwriters in excess of losses $60,895, or a gross profit to the underwriters of 75 per cent.

Here it is to be noted that the latter class is paying a lower premium rate than the second class of better risks. This is explained by the fact that in the second class are included a large number of varnish plants, and these plants always pay rates which are much higher than the average. The third class is made up of smaller factories which, on account of their size and surroundings, are able to secure a lower rate than many of the larger factories which have outside exposures of a detrimental character. The rates of insurance are materially affected by general conditions, such as location and surroundings.

The above figures show clearly that the sprinklered risks are paying an enormous tribute to the insurance companies and that the risks which we have designated as second and third class are much more than self-supporting. Concluding that one-third of the manufacturing plants have reported to us, we figure that the manufacturing membership of this association pays annually to the insurance companies $726,270 in excess of the annual fire losses, or in five years $3,631,356. Risks of the first class pay an excess in premiums over losses of 88 per cent.; the second class pays an excess in premiums over losses of 43 per cent., and the third class pays an excess in premiums over losses of 75 per cent. As the underwriters themselves inform us that their expense is 35 to 45 per cent. of the premium income it is now apparent that our industries are paying very large sums of money in the shape of excessive premium rates,

It is but natural that consideration of these figures should have already led many of us to the conviction that mutual insurance of some sort should be devised for the paint trade. It is safe to say that, if our risks were grouped together in a single organization at board rates, the expense of administration could be put upon a 15 per cent. basis. Your committee believes that the above constitutes the real and strongest reasons which the adherents of mutual insurance are able to summon in defense of their idea.

In seeking to devise some plan of effecting the saving to the members of what appears to be enormous excess premium payments the committee has set for itself certain requisites which each policy issued under its plan must possess. The policy must have back of it, beyond doubt, abundant responsibility in case of loss. In other words, we affirm unqualifiedly that premium receipts alone do not constitute a safe underwriting basis and we, therefore, are compelled to condemn any plan of mutual insurance which has for its basis premium payments only.

Your committee appreciates the responsibility of recommending any concrete plan and we have made a diligent study of straight mutual insurance which depends upon the premium income alone. We have consulted with both the Senior and Junior Mill Mutuals of New England and we have observed the pronounced tendency on the part of industrial trades to segregate and organize their insurance risks in groups and classes, managed by central offices. Some of our own members are underwriters at American Lloyds, while others are underwriting as various "inter-insurance" organizations, or variants of the same.

Your committee has had the privilege of examining the records of some of these inter-insurance organizations and we find that risks such as we have put in our first class have averaged a return of from 50 to 85 per cent. of their annual premiums; risks such as we have put in the second and third classes should save between 25 and 50 per cent.

The statistics submitted in this report more than verify the above observations, and therefore your committee submits that the price of fire insurance to the members of this association is entirely too high, and we recommend that immediate steps be taken looking to the adoption of a plan whereby those huge excess premiums may be saved to our members. If this recommendation is adopted we wish to assure the members that they are not pioneers. It is no new or untried field which you are asked to enter upon. The career of the Junior and Senior Mill Mutuals of New England is too well known to require comment here; as to them, suffice it to say that for the year 1904 the Senior Mutuals of New England returned in dividends on premium payments to their members from 83 to 92.41 per cent., while the Junior organization returned to its members from 70 to 92.41 per cent.

It may be of interest to remark here that the National Association of Manufacturers at their convention at Atlanta last May appropriated $10,000 to cover the expenses incident to the organization of an insurance bureau or exchange, through which the risks of their members might be insured.

Mutual insurance organizations are already in successful operation in the lumber industry, the paper industry, the rubber manufacturing industry, all kinds of textile manufacturing industries, and they are to be found in successful operation in practically every State in the Union. Those that are organized upon right principles are returning to their members from 25 to 75 per cent. of the premiums paid, which means that these manufacturing industries are getting their insurance upon an average price one-third less than our industries pay. In many of these offices the expense of administration is held at 15 per cent. and some at 20 per cent. of their premium income. As we have already stated, the board companies report an expense of from 35 to 45 per cent. of their premium income.

Your committee has made a careful study of the different plans adopted by other manufacturing industries. As above indicated, we cannot lend our approval to any plan which depends upon premium receipts alone, and we consequently eliminate that kind of insurance from further consideration.

Another plan is that developed by the Furniture Workers at their recent convention in the city of New York, which, in brief, involves the organization of a stock company with a large paid-up capital. The objection to this is the likelihood that the management of the stock company would necessarily involve the same methods and ultimately the same ratio of expense as that of the present stock companies. In addition to this, the possible difficulty of securing the $500,000 in cash necessary as paid-up capital is to be considered.

The plan which we have decided to advise involves the principle of responsible co-operative or individual underwriting. The idea is well termed "inter-insurance." If this plan is adopted it will be necessary to classify the risks of our association as they have been in this report, for the purposes of inter-insurance; for instance, the sprinklered risks will have to be in a class by themselves and it is to be understood that when a risk is placed in a certain class the underwriting activity of the subscriber is confined entirely to that class, i. e., a sprinklered risk assumes no liability whatever on unsprinklered risks—that is to say, underwriters in class one are not underwriters in class two.

To explain definitely the operation of this plan will take some time, and the members of this committee will be glad to discuss the subject on the floor of the convention. For the purposes of this report, however, we wish to state that under this plan each class of risks will stand upon its own bottom. The underwriters of each class are confined to their particular class and each gives to the manager of a central office power of attorney to use his name as an underwriter to a specified amount, depending upon the extent of responsibility which each underwriter cares to assume. The extent of this responsibility is governed chiefly by the amount of insurance which the underwriter desires for his own risks. For the policies issued under this plan board rates are charged.

In all classes (possibly excepting the sprinklered risks) it is necessary for each participant to make a cash deposit of from $500 to $2,000, depending upon the amount of insurance which he requires. This deposit is held by the attorney as an underwriting basis in all cases where the risks of the participants are more hazardous than in class one, and is returnable with interest to the subscriber in the event of the cancellation of the risk. It is to be understood, however, that in addition to the liability of the cash deposit there is a further liability of the person or firm signing the power of attorney. It should be clearly understood that this document is as strong as a promissory note and in case of an unusual number of fires involving unprecedented losses, it would be possible for the attorney to call upon each individual underwriter for three to five times the amount of cash deposited, and, in the case of sprinklered risks, if no deposits are made, three to five times more than the stipulated obligations. The outside limit of liability is, however, expressly stipulated. To make this liability secure the attorney in fact and manager of the department will refuse to accept any risk whose Bradstreet or Dun rating is not entirely satisfactory. It is also to be borne in mind that all the risks in our association cannot possibly be underwritten by this plan. The boundary line of each class has to be very rigidly drawn and not more than three classes can be entertained. Any plant whose physical hazard will not come within the lines determined by the advisory committee would not be eligible to participate in this insurance.

To carry out the above plan of insurance it will be necessary for the association to secure the services of an expert underwriter; one who has had long experience and preferably in this line of insurance. Such person should be the attorney in fact and manager of the enterprise. Assisting him and governing in all essential matters would be an advisory committee of five members of the association, selected by the members participating in the plan.

Some of our members are already enjoying this kind of insurance and have been for more than five years. They have received in premium returns an average of more than 40 per cent. and the statistics which your committee is privileged to present in this report more than bear out the statement that our risks, if properly organized and conducted, will also receive like returns on their premium payments.

This plan has been tried and found safe and effectual; it offers a saving of from 40 to 50 per cent. In our insurance premiums. Your committee strongly recommends that it be adopted by the members of this association.

Lime Colors.

By "lime colors" are understood all the colors which can resist the influences of the weather and of caustic lime. These are, especially, the green and blue lime colors and their imitations. The oldest lime colors, which may also be classed as the most durable, are cobalt blue, cobalt green and lime blue. To these may be added the imitations manufactured from coal tar dyes, and fixed upon green earth or other substrata. The latter occupy an important place in the manufacture of earth colors.

The ores employed in making cobalt colors are called saphera, and three kinds, or first, second and third quality, are distinguished, according to the purity of the roasted ores. They consist essentially of cobalt oxide, nickel, arsenic, manganese and bismuth oxides, and are obtained by precipitating a solution of cobaltous sulphate with a solution of potassium carbonate. From them are manufactured smalt, cobalt ultramarine, coerulein, Rinmann's green (called also Saxon green or cobalt green) and other cobalt colors. Smalt is obtained by melting saphera, which is an impure protoxide of cobalt, together with potassium carbonate; a blue glass results, which is ground fine. This product was discovered by Schurer, about the middle of the sixteenth century. In the Saxony blue-color manufactories smalt is made by melting together roasted cobalt ores with potash and quartz, an operation which is performed in fire-brick crucibles in glass ovens. The mass which comes out of the ovens is immediately cooled in water. This is best done in rotating sheet iron drums with conveyer, and followed by grinding. The various sorts of smalt blue are made from the common smalt by repeated grinding and washing.

Lime blue, or Neuweid blue, is made by precipitating a solution of 100 parts of copper sulphate and 12 or 13 parts of ammonium chloride (sal-ammoniac), with addition of a lime-milk made by slaking 30 parts of burnt lime. This color may also be obtained by reciprocal precipitation of the solutions of copper nitrate with caustic lime or caustic potash, and washing. The desired solutions are obtained by an admixture of heavy spar or light spar.

Schweinfurt green and a number of other green colors are also lime-proof. Green earth, which is mined in large quantities, plays a not unimportant part at the present day. It is originally of an impure yellowish-green color, and is beautified with aniline dyes of basic character. Green earth has the tendency, without mordants or precipitating agents, to absorb the basic dyestuff from the aqueous solution and to fix it, lime-proof. A Bohemian green earth showed, by analysis, the following composition:—43.40 per cent. silicic acid, 6.30 per cent. aluminium oxide, 10.09 per cent. ferrous oxide, 4.35 per cent. ferric oxide, 6.80 per cent. calcium oxide (united with SiO_2), 4.10 per cent. calcium carbonate, 14 per cent. magnesium oxide, 0.25 per cent. alkali, 6 per cent. water in chemical composition, 4.82 per cent. free water.

For dyeing, the green earth is employed in a finely pulverized and well dried state. The powder is made into a paste with a little water, in a vat provided with a stirrer, and quite concentrated aqueous solution of an aniline dye is prepared and added to the first with vigorous stirring. After stirring for a while, the thick paste is poured out upon drying boards, and dried in a drying room or in the open air under a roof.

The best and simplest way of preparing the dried lime greens for export is to grind them to a fine dust in a disintegrating apparatus.

The coal tar dyes most used in lime colors are brilliant green or tetra-ethyl-diamido-triphenyl-carbinol, malachite green or tetra-methyl-diamido-triphenyl-carbinol, naphthol green or the Fe-Na-salt of nitroso-B-naphthol sulpho acid, and the solid green, a mixture of brilliant and malachite green. These colors can also be prepared in vertical mills by making the fine green earth powder into a paste with a very little water, and sprinkling it with the concentrated solution of the dye. White substrata, like light and heavy spar, may also be colored in this way with aniline dyes. The spar, finely pulverized, is put into the mill, mixed with the required quantity of some coal tar dye in powdered form, the mill is set in motion, and 50 per cent. solution of Turkey-red oil dropped in together with a certain amount of glycerin, until the substratum is brilliantly colored with the dye.

Fine lime greens and greens for wall painting are produced as follows:—600 kilogrammes of fine earth are stirred together in a vat with about 200 litres of cold water, mixed with a solution of 36 kilogrammes of brilliant green, and fixed with 120 kilogrammes of potassium bichromate. This color is expensive, but has the advantage of being very brilliant and also fast to lime and to light. A similar color, somewhat bluer in tint, is made from 300 parts of green earth, 12 parts of malachite green and 45 parts of potassium or sodium bichromate. Fine greens are made without green earth by stirring together heavy spar with sodium sulphate in water, adding a concentrated solution of ferric sulphate and then naphthol green and precipitating with barium chloride.

Burnt lime, CaO, mixed with heavy spar, colored with naphthol green, and treated with ferric chloride, gives practical colors. Fine greens can also be made from green earth, kaolin and brilliant or malachite green. A good lime color is made as follows:—150 parts of caustic lime are well slaked with cold water, and when reduced to a fine powder, put into the stirring vat; 375 parts of very finely pulverized heavy spar are washed through a gauze sieve and well stirred in. A solution of 30 parts of naphthol green is prepared by dissolving the dye in ten times as much boiling water, and cooling. This solution is stirred into the vat, and the dye fixed with a quite concentrated solution of aluminium chloride. It is best to press off the color, without washing, in an iron filter press. It is then dried and pulverized, and is absolutely fast to lime. Other greens are made from a mixture of heavy and light spar and green earth, which can be colored with diamond green or solid green by the methods already described.

A limeproof red is made from a mixture of aluminium hydrate and heavy spar, colored with azarin S, and fixed with a 50 per cent. Turkey-red-oil, with boiling.

A limeproof yellow can be made from aluminium hydrate, heavy spar, naphthol yellow S, aluminium sulphate and barium chioride; likewise from powdered caustic lime, heavy spar, naphthol yellow and aluminium chloride. A fine limeproof imitation of Schweinfurt green is produced by mixing lime green with a limeproof yellow. The greatest variety of tints can be produced in this way.—Farben Zeitung.

Potassium Percarbonate.

BY WILLIAM D. BROWN.

Since Constam and Van Hansen described the method for the manufacture of potassium percarbonate, it has been thought that it would be useful as an oxidizing agent. In the preparation of this compound the method of the above authors was followed rather closely.

Potassium percarbonate is prepared by electroiyzing a saturated solution of the carbonate at a temperature below 0 deg. C. A porous cell of 200 cc. capacity was placed in a cylindrical vessel of such size that the outer or anode space had a capacity of 150 cc. In the porous cell was the cathode of nickel gauze and the cathode solution of 20-40 per cent. potassium carbonate. Around the porous cell, in the concentrated solution of potassium carbonate, a platinum wire was wound as a spiral. The whole was immersed in a mixture of ice and common salt, which brought the temperature down to —15 deg. C.

A concentrated solution of pure potassium carbonate, at 15 deg. C., has a specific gravity of 1.556. On lowering the temperature of this solution no crystallization takes place, but if the salt be impure, if a small quantity of common salt get into the solution, crystallization takes place on lowering the temperature, and, on passing a current, no crystals of potassium percarbonate are formed.

In reactions of this class it is necessary to have a high anode density and low cathode density. This was attained by having the nickel gauze cathode and platinum wire anode. The wire was 0.0345 cm. thick and 48 cm. long, making an anode surface of 0.05 sq. dm. The authors referred to state that an anode density of 60 amperes per sq. dm. should be used. Accordingly, a current of 3 amperes (and about 10 volts) was used. This heated the solution too much, and a mass of bicarbonate was formed. On shortening the wire to 24 cm., and passing a current of 1½ amperes (the density remaining the same) a mass of blue crystals was obtained floating in the anode solution. These were filtered by suction, when the blue color almost entirely disappeared.

Potassium percarbonate in solution behaves like hydrogen peroxide. A solution of percarbonate and an alkaline solution of hydrogen peroxide rapidly decompose, and at the same rate while an acid solution of either does not lose strength on standing open. Moreover, an acid solution of percarbonate bleaches potassium permanganate. The reaction is $5K_2C_2O_6 + 8H_2SO_4 + 2KMnO_4 = 2MnSO_4 + 6K_2SO_4 + 8H_2O + 10CO_2 + 5O_2$. Accordingly, the strength of potassium percarbonate as an oxidizing agent was determined by titrating with permanganate in sulphuric acid solution. By titrating an aliquot part of the solution with hydrochloric acid (using methyl orange), the amount of potassium is obtained, and by comparing these the percentage of percarbonate in a mixture of percarbonate and bicarbonate is found. The product obtained in several experiments contained only from 30-40 per cent. percarbonate, while the authors mentioned state that a product of 80-95 per cent. percarbonate is obtained.

The formation of potassium percarbonate at this temperature, concentration, and anode density is attributed to the separation of K_2CO_3 into K and KCO_3, the KCO_3 uniting with another KCO_3 to form $K_2C_2O_6$.

A half pound of potassium percarbonate was received from Eimer and Amend. It had been rebottled by them from an importation of 10 pounds. The strength of this salt falls far below the normal. Dissolved in water and aliquot parts titrated with hydrochloric acid and permanganate, it showed a strength of 39.5 per cent. percarbonate. The salt is relatively stable, when kept in the dry state. Exposed over sodium hydroxide solution in a desiccator for twenty-four hours, 5 grams lost strength from 39.5 to 13 per cent. In the open air the strength fell in the same time to 21 per cent. In a large bell jar, connected with the air outside by a calcium chloride tube, the strength fell to 35 per cent. It also lost strength at the same rate when powdered and tightly corked in a small vial. The lumps in which it is purchased lose strength less rapidly than when powdered. Also the sample corked lost strength less rapidly than the sample from which we were using.

The similarity of the reactions of the solution of percarbonate and of the solution of hydrogen peroxide has been mentioned. The oxidizing reactions were studied further, a comparison being made with those of sodium peroxide. With a solution of chromium sulphate, sodium peroxide acts quicker than the percarbonate. But the greatest difference is shown in the case of their action on manganese sulphate; the peroxide throws down the brown precipitate of manganese dioxide, while percarbonate produces a small quantity of brown precipitate but mostly the light precipitate of manganese carbonate. On addition of sodium hydroxide to this precipitate in suspension, the dioxide is immediately formed. With a lead salt the same reactions occur.

From these reactions it would appear that the carbonate formed, and this is oxidized slowly by the available oxygen contained in the solution as hydrogen peroxide. These salts were taken as perhaps the hardest to oxidize. The percarbonate readily oxidizes compounds such as ferrous and stannous salts. It will also liberate iodine from hydriodic acid solution.

Ordinarily, as an oxidizing agent sodium peroxide is to be preferred to potas-

sium percarbonate. Moreover, the molecular weights are to be taken into account. The same amount of available oxygen is furnished by two and one-half times the amount of percarbonate as of peroxide.

In conclusion, potassium percarbonate can be produced from the pure carbonate, and is an oxidizing agent, but an oxidation reaction that cannot be caused by sodium peroxide remains to be found.—Journal Am. Chemical Society.

On Amorphous Sulphur.

(Continued from page 27.)

same result as leading in ammonia, and inability to be supercooled is therefore a property of pure Su. Sulphur dioxide and iodine, on the other hand, favor in some way the supercooling of Su.

At What Stage and in What Way Do Foreign Bodies Influence the Supercooling of Su?—At least three answers to these questions are possible.

(1) The foreign body may retard the backward progress of the action Sy=Su (possibly, but not very probably, by destroying something which if present alone would hasten it) and so diminish the speed with which the chemical equilibrium adjusts itself in response to the rapid changes in temperature attending the operation of chilling. This sort of influence, if exerted at all, will be exerted throughout the whole range of temperatures and stages from the boiling-point until hardening is complete.

(2) The foreign body may play no part until the transition from the liquid to the hardened condition is in progress, and at that time may determine the formation of the insoluble sulphur.

(3) The foreign body may exert its influence at the transition point from Su to Sy (160 deg.), favoring perhaps the supersaturation of Su with Sy, or hindering the initiation of the new phase of which Sy is the chief constituent. A fact which repeatedly forced itself upon our attention in the work described in the preceding paper shows that this supposition touches closely what is probably the true explanation of the greater part of the influence of foreign bodies. We have seen that distilled sulphur does not show the absorption of heat or the onset of viscosity so sharply as do the other kinds. Apparently the formation of the new phase which marks the upward transition does not so readily take place with sulphur prepared under the conditions attending distillation. It may, therefore, be presumed that the inverse change from Su to Sy brought about by cooling will be similarly less prompt with distilled sulphur. Now it has been shown by Berthelot and by ourselves (section V.) that, when no foreign ingredient has been purposely introduced, this kind of sulphur is precisely the one which gives by chilling the largest yields of insoluble sulphur.

There are probably still other possible modes in which the results may be brought about, and, in any case, it is not likely that any one kind of influence operates alone. Thus, in section V. the influence of iodine in continuing to increase the proportion of insoluble sulphur after hardening is complete has been demonstrated. Yet if (2) were the sole cause it would be difficult to see why previous heating at various different temperatures should give different proportions of insoluble sulphur.

A considerable amount of experimental work along the lines just indicated, as well as in other directions which there has been no occasion to mention in these papers, has already been done. It is hoped that a part of this will be sufficiently advanced for publication within a short time.

Analogy in the Behavior of Iron and Steel.—In conclusion it may be pointed out that the problems raised in this work are of especial interest in view of their similarity to those encountered in the study of the chilling of iron and steel. The similarity may be indicated by two examples taken from an almost endless number that might be used. Pure iron (a-ferrite) passes into B-ferrrite at 765 deg. and into y-ferrite above 890 deg. In this last condition it is non-magnetic. These temperatures are transition points similar to 95.6 deg. and 160 deg. for sulphur, save that in the case of iron both lie within the region in which the material is solid. When chilled, y-ferrite promptly reverts to a-ferrite and recovers its magnetic qualities. The addition of 12 per cent. of manganese, however, so reduces the facility with which y-ferrite passes into B- and a-ferrite that when the alloy is chilled the product contains only supercooled y-ferrite and is wholly non-magnetic. Even when cooled very slowly or when kept for hours at 400-500 deg. the specimen passes with difficulty into a condition of equilibrium by changing into an alloy of manganese with a-ferrite. This is an example of a foreign body hindering a transition which involves the production of a new phase. Again, Charpy and Grenet have shown that silicon favors the separation of graphite in cast iron, facilitating the initial appearance of the carban phase and causing the separation to proceed more rapidly after it has been initiated, while at the same time affecting in no way the amount finally deposited when the system has reached a condition of equilibrium. Here a foreign body seems to assist a process involving the production of a new phase. Our view is that the phenomena of supercooling shown by sulphur and by iron are to be explained on the same principles.

RESULTS OF THE INVESTIGATION.

(1) The hardening of plastic sulphur is discussed and it is shown that partial reversion to soluble sulphur prevents the securing in quasi-solid form of the whole of the amorphous sulphur present. It is stated, however, that sulphur formed by precipitation in presence of concentrated acids does yield 100 per cent. of insoluble sulphur and that only the impossibility of realizing the requisite condition of very fine subdivision is, therefore, responsble for the smaller yields from melted sulphur which has reached the highest temperatures previous to being chilled.

(2) A new series of measurements of the proportions of insoluble sulphur formed when common sulphur is chilled from various temperatures is given. The amounts vary from 4.2 per cent. at 130 deg. to 34 per cent. at 448 deg. In this and all other cases described, only the insoluble sulphur which remains after the viscous material has completely hardened is estimated.

(3) It is shown that when sulphur is subjected to prolonged heating at 448 deg., or is heated for a shorter time in vacuo, or is used immediately after recrystallization, or is washed with water before being heated, the amount of insoluble sulphur obtainable by chilling is greatly reduced. The effect of these modes of treatment seems to be to remove a trace of sulphuric acid which sulphur acquires by exposure to the air.

(4) It appears that gases like carbon dioxide and, particularly, ammonia and hydrogen sulphide, when led through melted sulphur destroy the ability to give insoluble sulphur. Their use does not, however, affect the viscosity above 160 deg.

(5) It is shown that air and sulphur dioxide restore the ability to give insoluble sulphur. The halogens, the halogen hydrides, and even phosphoric acid have the same effect.

(6) It is found that sulphur which has been treated with ammonia while melted and has afterwards been recrystallized, if used at once, freezes at 119.17 deg. and contains no insoluble sulphur.

(7) Sulphur containing iodine (100 : 2) gives, when heated and chilled, large amount of insoluble sulphur. These range from 4 per cent. at 110 deg. to 62.7 per cent. at 448 deg.

(8) The increase in the amount of insoluble sulphur obtained at 150 deg. is approximately proportional to the quantity of iodine present when the quantity of the latter is 1 per cent. or more.

(9) Sulphur prepared by distilling the element and quenching the burning stream in ice water gives 51 per cent. insoluble of sulphur. Chilling boiling sulphur in ether gives 44.1 per cent. of the insoluble form.

(10) It is shown by identity in boiling-points under ordinary and reduced pressures and identity in specific gravities that sulphur which will give the insoluble form when chilled is identical in constitution near the boiling-point with that which will not.

(11) It is shown by identity in solubility between 120 deg. and 160 deg. that the two kinds of sulphur mentioned in (10) are identical in constitution also below the transition point of Su to Sy (160 deg.).

(12) The facts referred to in (10) and (11), together with the conclusions of the preceding paper showing the identity of the two kinds of sulphur at the transition point (160 deg.) itself, demonstrate that the insoluble form is present in all specimens of melted sulphur in proportions depending upon the temperature alone, whether by treatment with ammonia or otherwise they have lost the capacity to give insoluble sulphur by chilling or not.

(13) The conclusion is reached that amorphous sulphur is supercooled Su—the form stable above 160 deg.

(14) With pure sulphur, freed from sulphur dioxide by recrystallization or by treatment with carbon dioxide above 310 deg., or by treatment with ammonia or hydrogen sulphide at any temperature at which it is fluid, the Su reverts so rapidly to the soluble form that it cannot be supercooled. When traces of sulphur dioxde, iodine and other substances are present, Su is more or less completely supercooled and gives amorphous sulphur. The way in which the latter class of foreign substances produces this effect is still being investigated.

(15) The close analogy of these phenomena to those observed in the cooling of cast iron and steel is pointed out.

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Crude, off quality		—@—
Yellow summer, prime		26 @—
Yellow summer, butter		30 @—
Yellow summer, off qu'ty.		—@—
White summer		28½@29
Yellow winter		28½@29
Winter white		28½@29
Soap stock	℔ lb.	—@—
Olive	℔ gal.	60 @62
Olive soap stock	℔ lb.	5¼@ 5½
Palm, red		5½@ 5¾
Lagos		6¼@ 6¼
Cocoanut, Ceylon		6¼@ 6¾
Cochin		7⅛@ 7⅛
Corn		3¼@3.40
Castor oil No. 3		9½@11
Mustard	℔ gal.	51 @52
Peanut, white		55 @65
yellow		50 @60
China wood oil	℔ lb.	6½@ 6¾
Pine oil	℔ gal.	26 @—
Tar oil, genuine distilled		25 @—
Rosin, first run		23 @24
second run		26 @27
third run		28 @29
fourth run		30 @31
Rapeseed in bbls., burning		62 @63
blown		56 @57
refined		56 @57

Animal and Fish Oils.

Black fish, crude	℔ gal.	30 @33
bleached, winter		43 @45
Cod, domestic, prime		34 @36
Newfoundland		39 @40
Degras, French	℔ lb.	2.35@2.70
English		2.40@2.65
German		2.45@2.70
American		2.15@2.35
French Moellen		5 @ 6½
French domestic Moellen		4 @ 4¾
Herring	℔ gal.	16 @17
Lard, extra prime, winter		60 @61
prime		58 @59
off prime		53 @—
Extra No. 1		47 @50
No. 1		37 @42
Menhaden, Northern		17 @18
Southern, f. o. b. Baltimore		16 @16½
Brown: strained		27 @28
Light strained		28 @29
Bleached winter		30 @31
Ex. bleached winter white		31 @32
Neatsfoot, 20 deg., cold test		90 @92
30 deg., cold test		80 @82
40 deg. cold test		60 @61
Prime		49 @50
Dark		47 @48
Red, Elaine		33 @35
Saponified	℔ lb.	4¼@ 4½
Seal, bleached, refined	℔ gal.	39 @42
Sea Elephant, natural winter		43 @45
bleached winter		45 @46
Sod, American		13 @18
English		25 @35
Sperm, crude, f. o. b. New Bedford		55 @—
Natural, spring		—@—
Natural, winter		60 @63
Bleached, spring		—@—
Bleached, winter		63 @65
Tallow, acidless		57 @59
Prime		51 @53
Dark		46 @47
Whale, crude		—@—
Natural, winter		42 @44
Natural, spring		—@—
Bleached, spring		—@—
Bleached, winter		44 @46
Extra bleached, winter		46 @48

Mineral Oils.

Black reduced, 29 gravity, 25@30 c. t.		10½@11¼
29 gravity, 15 cold test		11½@12½
27 gravity, zero		16 @17
Summer		10½@11½
Cylinder, light, filtered		18 @19
Dark, glittered		16 @17
Extra cold test		22½@29½
Dark, steam refined		12 @14
Natural, Franklin, 32 gravity		10 @15
Smiths Ferry, 32@34 gravity		8 @ 9½
West Virginia, 29 gravity		19 @20
Neutral filtered lemon, 33@34 gravity.		15 @19½
White, 33@34 gravity		22½@24½
32@34 gray, bloomless		14½@19½
32 gray, wool grade		12½@14½
Paraffine, high viscosity		21½@24½
903-907 sp. gr.		12½@13
903 sp. gr.		11½@12
883 sp. gr.		9¼@ 9½
875 sp. gr.		8½@ 9
865 sp. gr.		8½@ 9
Red paraffine		11½@13
Spindle, No. 1, filtered		15 @16
No. 1		12 @13
No. 2		11 @12
No. 3		10 @11
No. 4		9½@10

Oil Cake, Meal, Etc.

Calcutta, cake, city	℔ long ton.	29.00@—
City, domestic	℔ long ton.	29.00@—
Western, in bags	℔ long ton.	29.00@—
Cottonseed cake at Memphis	℔ short ton.	—@—
at New Orleans	℔ long ton.	26.25@—
at Galveston	℔ short ton.	24.25@—
at Boston	℔ long ton.	—@—
Cottonseed meal at Memphis	℔ short ton	—@—
at New Orleans	℔ long ton.	26.25@—
at Galveston	℔ short ton.	24.00@24.50
Corn, cake	℔ short ton.	—@—
meal	℔ short ton.	—@—

Wax, Lard, Tallow, Etc.

Paraffine wax, crude	℔ lb.	5 @ 5¼
refined, 120 m. p.		6 @ 6½
125 m. p.		6¼@ 6½
130 m. p.		7¼@ 7¾
135 m. p.		8¼@ 8¾
140 m. p.		13½@14
Candles, adamantine, 6s. 16 ozs.		8½@ 9
14 ozs.		8½@ 9
paraffine, 4s. and 6s.		10 @11
12s., 16 ozs		11 @11
14 ozs.		11 @—
16 ozs.		—@—
Candles, patent sperm, 4s. and 6s.		38 @40
sperm, 4s. and 6s.		33 @34
Stearic acid—		
Plain, 4s., 6s. and 8s.		10½@—
patent ends, 4s. and 6s.		11 @—
cartons, 6 lbs. each		11½@—
Lard, spot, tierces		7¼@ 7¼
export, packages		7¼@—
compounds		5½@ 5¾
neutral		9½@—
Lard, stearine		8@—
Oleo, stearine		7⅝@—
Tallow		4¼@ 4¾
Stearic acid		9 @ 9¼
Whalebone, Arctic, prime		5.00@6.00
Northwest		4.50@5.00
South Sea		4.00@4.50

Naval Stores.

Spirits turpentine, spot	℔ gal.	72 @	72½
Rosin, strained	℔ bbl.	4.05 @	—
Good strained		4.05 @	—
D		4.05 @	—
E		4.75 @	—
F		5.15 @	—
G		5.20 @	—
H		5.25 @	—
I		5.30 @	—
K		5.35 @	—
M		5.35 @	5.40
N		5.40 @	5.45
Window glass		5.80 @	—
W. W.		6.10 @	—
Tar, oil bbls. of 50 gals.		5.50 @	6.00
Pitch		3.00 @	3.10

Paints, Varnishes, Etc.

White Lead, Zincs, Etc.

White lead, American dry	℔ lb.	5¼@ 5¾
In oil		6¾@ 7¼
English in oil		9¼@ 9¾
Litharge, American powdered		6 @ 6¾
English glassmakers		—@—
Red lead, foreign		7½@ 8½
American		6½@ 6¾
English glassmakers		7½@ 7¾
Orange mineral, American		8¼@ 8½
English		8 @10
French		10¾@12¼
German		8¾@10¼
China white		9¼@ 9½
Flake white		9½@ 9¾
Cremnitz, white		10 @12
Zinc white, Paris G. S., 50 bbls. 10% less		4 ℔ ct
G. S., 25 bbls. 10%		2 ℔ ct
G. S., 20 bbls. 10%		1 ℔ ct
R. S., 50 bbls. 9½		4 ℔ ct
R. S., 25 bbls. 9½		2 ℔ ct
R. S., 10 bbls. 9½		1 ℔ ct
Antwerp R. S., 50 bbls. 8¼		4 ℔ ct
R. S., 25 bbls. 8¼		2 ℔ ct
R. S., 10 bbls. 8¼		1 ℔ ct
G. S., 50 bbls. 9⅝		4 ℔ ct
G. S., 25 bbls. 9⅝		2 ℔ ct
G. S., 10 bbls. 9⅝		1 ℔ ct
G. S. in poppy oil		12½@13¼
R. S. in poppy oil		11½@12
American extra dry		4¾@ 4¾
Florence Green Seal		7¼@ 7¾
Florence Red Seal		6¾@ 7
German Red Seal		7¼@ 7½
green seal		7½@ 7¾

Dry Colors.

REDS.

Carmine, No. 40	℔ lb.	3.50 @3.60
Crocus martus, imported		2½@ 3½
standard, American		1 @ 2½
Indian red, standard American		3 @ 3½
English		4½@ 8½
Rose pink, American		8 @ 10¾
English		8½@ 10
Tuscan red, English		7 @ 10
Turkey red, English		4 @ 10
Venetian red, English	℔ 100 lbs.	1.15 @1.75
American		50 @1.25
Vermilion, imported English	℔ lb.	75 @ 80
American quicksilver, bulk		— @ 65
bags		— @ 66
Chinese		90 @1.00
American		10 @ 25

BLACKS.

Bone	℔ lb.	2 @ 5
Carbon		5 @10
High grade		15 @28
Drop, American		4 @ 6
English		5 @15
Ivory		16 @20
Lamp, commercial		4½@ 6
Refined		7 @15
Calcined		8 @20
fine, spirit		20 @35

BLUES.

Celestial	℔ lb.	4 @ 6
Chinese		29 @32
Italian		18 @25
Prussian		27 @30
Prussian, foreign		32 @36
Refiners'		60 @70
Soluble		29 @33
Ultramarine		4½@15
Verditer		25 @30

BROWN.

Sienna, Italian, burnt and powdered	℔ lb.	3 @ 8½
burnt, lump		1½@ 3
raw, powdered		3 @ 6½
raw, lump		1½@ 2
American, burnt and powdered		1½@ 2
raw		1½@ 2
Spanish brown		½@ 1
Umber, Turkey, burnt and powdered		2½@ 3½
burnt, lumps, selected		3 @ 4½
raw and powdered		2½@ 3½
raw, lumps		3 @ 4½
American burnt		1½@ 2
raw		1½@ 2

GREENS.

Chrome, chemically pure	℔ lb.	17 @25
extra		12 @15
Super		8 @10
common		3½@ 6
Paris, in bulk		16 @—

YELLOWS.

Chrome	℔ lb.	11 @	14
Ocher, French		1¼@	2½
Foreign, golden		3 @	4
German		2½@	3
Domestic	℔ ton.	8.50 @16	00
golden	℔ lb.	2½@	3½

Miscellaneous.

Barytes, prime white, foreign	℔ ton.	17.50 @19.00
foreign floated		19.00 @21.00
domestic prime white		16.00 @17.50
floated		18.00 @19.00
off color No. 2		13.50 @15.00
off color		11.00 @13.00
crude, No. 1		10.00 @11.00
No. 2		8.00 @ 9.00
No. 3		7.00 @ 8.00
Blanc fixe, in bulk (orin'l casks 1,000 lbs. each)	℔ ton.	41.00 @42.00
dry (in bbls., 600 lbs.)		2¾@ 3
Bronze powder		50 @ 2.50
Chalk	℔ ton.	3.00 @ 3.25
Clay, China, imported		11.00 @17.00
Domestic		7.50 @ 9.00
Coal tar, in oil bbls, 50 gls.		4.50 @ 4.55
Cobalt, oxide	℔ lb.	2.50 @ 2.60
Feldspar	℔ ton.	10.00 @12.00
Fuller's earth, lump	℔ 100 lbs.	80 @ 85
powdered		80 @ 85
Lithopone		3¾@ 7
Marble flour	℔ ton.	7.00 @ 8.00
Manganese, car lots		21.00 @60.00
jobbing	℔ lb.	2½@ 3½
Magnesite, raw	℔ ton.	7.00 @ 8.00
calcined, pow'd	℔ lb.	1½@ 2
Plaster of Paris	℔ bbl.	1.30 @ 1.60
dentists'		1.45 @ 1.65
Pumice stone, orin'l cks	℔ lb.	1¾@ 4
selected lumps in bbls.		3¾@ 5
powdered pure, bbls.		1¼@ 2
Putty, com'l bbls., tubs 100 lbs.		1.15 @ 1.35
pure, in do.		1.45 @ 1.50
linseed oil, in do.		1.70 @ 1.75
colored, in do.		1.95 @ 2.00
white lead, in do.		2.20 @ 2.25
com'l in 12½, 25, 50-lb. tins		1.45 @ 1.85
pure, in do.		1.70 @ 1.85
linseed oil, in do.		2.00 @ 2.15
colored, in do.		2.25 @ 2.40
white lead, in do.		2.50 @ 2.65
com'l, in 1, 2, 3, 5-lb. tins.		2.60 @ 2.90
pure, in do.		2.80 @ 3.20
linseed oil, in do.		2.60 @ 3.50
colored, in do.		2.85 @ 3.75
white lead in do.		3.10 @ 4.00
com'l, in bladders		1.65 @ 1.85
pure, in do.		2.00 @ 2.05
linseed oil, in do.		2.30 @ 2.35
Rottenstone, orin'l casks	℔ lb.	4 @ 7½
selected lumps		5½@ 25
powdered, in bbls.		3 @ 4
Silex	℔ ton.	12.00 @40.00
Smalt, German blue	℔ lb.	6 @ 10
Super, black		4 @ 7
Talc, American	℔ ton.	15.00 @25.00
French		15.00 @30.00
Italian		20.00 @75.00
Terra alba, Amer. No. 1,	℔ 100 lbs.	60 @ 70
No. 2		50 @ 60
English		90 @ 1.00
French		90 @ 1.00
Whiting, commercial		43 @ 48
Gilders'		50 @ 55
extra gilders'		55 @ 60
American Paris		64 @ 68
English cliffstone		75 @ —

Glues.

Extra white	℔ lb.	18 @ 24
Medium white		14 @ 17
Cabinet		11 @ 15
Low grade		9 @ 12
Foot stock, white		11 @ 14
brown		8 @ 11
Common bone		7 @ 9
Irish		13 @ 16
French		10 @ 40
German hide		12 @ 18
common		10 @ 12
Fish, liquid (in bbls. 50 gal. each)	℔ gal.	50 @ 1.20

Varnish Gums.

Asphaltum, Barbadoes	℔ lb.	2½@ 4
Cuban		1½@ 8½
Egyptian		7½@ 8½
Copal, Sierra Leone, cleaned		60 @75
Zanzibar, pure white		55 @60
thumb size		35 @40
sorts		44 @50
beans and pea		25 @30
Manila, pale		9 @17
bark, hard		12 @13
bright amber		11 @13
standard sorts		8 @ 9
nubs, No. 1		6 @ 6½
nubs, No. 2		4½@ 5
chips, No. 1		4½@ 5
chips, No. 2		2½@ 4½
Damar, Batavia		14½@15
Singapore		9 @10
Kauri No. 1		28½@32
No. 2		20½@23
No. 3		13½@16
Chips, pure from 4 x to 5 x		27½@28½
Chips, white prime		15 @24
Dust		6½@12
B. 1		17 @18
B. 2		12 @14
Brown chips, ordinary		6½@ 7½
Brown chips, extra		9½@15
Brown, dust		3 @ 5
White, dust		6½@ 9
Brown sugar		7 @ 9
Single cross		33 @35
Double cross		38 @43
Triple cross		42 @45
Picture quality		65 @75
Pale and fine selected		50 @55

WINDOW GLASS.

Eastern Price List.

AMERICAN WINDOW GLASS.

SINGLE.

United Inches.	AA	A	B
25	$32.50	$26.75	$25.00
34	33.50	28.00	26.75
40	36.00	30.00	28.00
50	37.50	31.75	29.50
54	38.75	32.75	36.00
60	40.00	34.75	31.00
70	42.75	38.50	33.75
80	48.75	44.50	38.50
84	52.00	47.50	41.75

DOUBLE.

United Inches.	AA	A	B
25	$42.75	$37.50	$35.50
34	46.75	41.50	38.75
40	52.00	45.50	41.50
50	56.00	49.50	46.00
54	57.50	50.75	46.75
60	58.75	52.00	47.50
70	62.75	56.00	50.75
80	68.00	61.50	55.50
84	69.50	62.75	56.75
90	73.50	66.75	61.50
94	74.75	68.00	62.75
100	88.00	80.00	74.75
105	94.75	86.75	80.00
110	105.50	97.50	90.75
115	118.75	108.00	101.50
120	140.00	126.75	120.00
125	153.50	140.25	133.50
130	167.00	153.75	147.00

An additional 10 per cent. will be charged for all glass more than 40 inches wide, All sizes over 52 inches in length, and not making more than 81 united inches, will be charged in the 84 united inches bracket. All glass 54 inches wide or wider, not making more than 116 united inches, will be charged in the 120 united inches bracket.

The discounts at present are 90 per cent. on the first two brackets for single and double strength, and 88 per cent. on other sizes above.

Western Price List.

AMERICAN WINDOW GLASS.

SINGLE.

United Inches.	AA	A	B
25	$32.00	$26.75	$25.50
34	33.50	28.00	26.75
40	36.00	30.00	28.00
50	37.50	31.75	29.50
54	38.75	32.75	30.00
60	40.00	34.75	31.00
70	42.75	38.50	33.75
80	48.75	44.50	38.50
84	52.00	47.50	41.75

DOUBLE.

United Inches.	AA	A	B
25	$42.75	$37.50	$35.50
34	46.75	41.50	38.75
40	52.00	45.50	41.50
50	56.00	49.50	46.00
54	57.50	50.75	46.75
60	58.75	52.00	47.50
70	62.75	56.00	50.75
80	68.00	61.50	55.50
84	69.50	62.75	56.75
90	73.50	66.75	61.50
94	74.75	68.00	62.75
100	88.00	80.00	74.75
105	94.75	86.75	80.00
110	105.50	97.50	90.75
115	118.75	108.00	101.50
120	140.00	126.75	120.00
125	153.50	140.25	133.50
130	167.00	153.75	147.00

An additional 10 per cent. will be charged for all glass more than 40 inches wide. All sizes over 52 inches in length, and not making more than 81 united inches, will be charged in the 84 united inches bracket. All glass 54 inches wide or wider, not making more than 116 united inches, will be charged in the 120 united inches bracket.

The discounts at present are 90 and 10 per cent. on the first two brackets for single and double B quality, and 80 per cent. on other sizes except for single strength glass, 24 inches wide and over, on which the discount is 88 per cent.

Metallic Paints.

Brown	℔ ton.	19.00@21.00
Red		16.00@20.00

Colors in Oil.

Black coach, Japan	℔ lb.	20 @30
in oil		14 @18
drop		14 @18
lampblack		12 @14
Blue, Chinese		36 @46
Prussian		32 @36
ultramarine		13 @16
Brown, sienna, burnt		12 @15
raw		12 @15
Umber, burnt		11 @14
raw		11 @14
Vandyke brown		11 @14
Green, chrome		10 @15
Paris		—@24
Red, Indian		12 @14
Venetian		6 @ 8
Yellow, chrome		16 @20
ocher, French		6 @ 8

Drugs.

Opium.

Opium, cases	—	@ 3.30
powdered	3.70	@ 3.75

Morphine.

Morphine, bulk	℔ oz.	2.10 @ 2.20
oz. vials		2.15 @ 2.25
¼ oz. vials, 2½ oz. bxs		2.35 @ 2.45
⅛ oz. vials, 1 oz. bxs		2.40 @ 2.50

Codeine.

Codeine, pure, bulk	℔ oz.	3.20 @ 3.40
ozs.		3.25 @ 3.45
eighths		3.45 @ 3.65

Sulphate, nitrate and muriate, 25c., and phosphate 50c. per oz. less than pure.

Quinine.

Quinine, 100 oz. tins	20 @	—
50 oz. tins	20½@	—
25 oz. tins	21 @	—
5 oz. tins	22 @	—
1 oz. tins	25 @	—
German outside	19¼@19½	
Java	19 @	19½
Cinconida, bulk	13 @	14

Miscellaneous.

Acetanilid, in bbls.	℔ lb.	21½@ 23
Acetone		16 @ 16¼
Acid, benzoic, true	℔ oz.	10 @ 11
ex toluol	℔ lb.	30 @ 33
boracic, crystals, city		10 @ 11
powdered, city		10 @ 11
carbolic, drums		12½@ 13
bottles		20 @ 22
citric, domestic		38 @ 38½
pyrogallic, bulk		1.65 @ 1.70
salicylic		31 @ 34
Alcohol, 94%	℔ gal.	2.49 @ 2.51
ref. wood, 95%		70 @ —
97%		75 @ —
purified		1.25 @ 1.30
Aloin	℔ lb.	45 @ 50
Ambergris, black	℔ oz.	18.00 @20.00
gray		27.50 @35.00
Ammonia, carb. domestic	℔ lb.	8½@ 8½
foreign		8½@ 8¾
Antimony, needle		9½@ 11
Areca nuts		5 @ 6
Balm of Gilead, buds		43 @ 45
Barium chlorate		16 @ 18
nitrate		5 @ 5½
Barbadoes tar, in bbls.	℔ bbl.	30 @ 35
Bayberry wax	℔ lb.	— @ 45

Bay rum, bbls	1.75	@	2.35
Beeswax, white, pure	40	@	50
yellow, crude	32½	@	33
yellow, refined	35	@	36
Bismuth, citrate	2.65	@	2.70
subcarbonate	2.50	@	2.55
subgallate	2.35	@	2.40
subnitrate	2.25	@	2.30
Blue pill	34	@	37
Borax crystals, in bbls	7¾	@	8
powdered	7¾	@	8½
Bromide, ammonium	24	@	27
potassium	17	@	20
sodium	22	@	25
Bromine, bulk	—	@	50
Burgundy pitch	—	@	3½
Caffeine	2.65	@	2.75
Calomel, American	77	@	79
English	—	@	1.00
powdered	55	@	58
Cantharides, Chinese	47	@	50
powdered	52	@	55
Russian	1.25	@	1.30
powdered	—	@	1.25
Carnauba wax, Flor	—	@	—
No. 1	48½	@	50
No. 2	39	@	42
No. 3	31	@	32
North Country	32	@	33
Carbon, bisulphide	5	@	7
Castile soap, white, pure	10¾	@	—
Marseilles	8	@	10
green, pure	8	@	10
ordinary	6	@	6½
mottled, pure	6½	@	7
ordinary	5½	@	6
Castor oil, city, bbls	10¼	@	11¼
cases	10¾	@	11¾
Ceresin, yellow	12½	@	18
white	15	@	20
Chloral hydrate, crusts	93	@	95
crystals	95	@	1.00
Chloroform	25	@	30
Civet	1.50	@	1.00
Cocaine, bulk	3.50	@	3.75
Cocoa butter, 12-lb. boxes	35	@	36
bulk	28	@	29½
Codliver oil, Newf'land	bar. 22.00	@	25.00
Norwegian	27.00	@	30.00
Colocynth apples, Spanish	27	@	29
Trieste	33	@	34
Cologne, spirit, 190%	proof gal. 1.32½	@	1.33½
Corrosive sublimate	68	@	80
Coumarin, refined	2.65	@	2.75
Creosote, beechwood	73	@	75
Cuttlefish, Trieste	15	@	16
French	12	@	13
Jewelers'	40	@	70
Dragons' blood, mass	20	@	50
reeds	45	@	50
Epsom salts	100 lbs.	85	@ 1.30
Ergot, Russian	lb.	41	@ 43
Spanish		43	@ 45
Ether, 1880		53	@ 54
washed		56	@ 57
1890		58	@ 60
Eucalyptol		90	@ 1.00
Formeldehyde		8¾	@ 9½
Fusel oil, crude		75	@ 80
refined		1.00	@ 1.05
Gelatine, silver	lb.	23	@ 26
gold		30	@ 40
Glucose, 42°	100 lbs.	1.91	@ —
Glycerine, C. P., bulk	lb.	12	@ 12¼
drums and bbls. added			
C. P., cans		13	@ 13¼
Dynamite		10½	@ 11
Crude, soap lye		7¾	@ 7¾
saponification		8¾	@ 9
Grains of Paradise		12	@ 12½
Grape sugar, 70°	100 lbs.	1.91	@ —
Guarana	lb.	55	@ 60
Haarlem oil		1.95	@ 2.00
Hops, N. Y., 1904		20	@ 22
Pacific Coast, 1904		17	@ 19
Hypophosphite, lime		60	@ 64
potash		65	@ 69
soda		65	@ 69
Iceland moss		5	@ 6
Insect powder		14	@ 25
Iodine, resublimed		4.15	@ 4.20
Iodoform		4.40	@ 4.45
Irish moss, ordinary		6½	@ 8
bleached		9½	@ 10
Isinglass, Russian		3.60	@ 3.65
American		78	@ 80
Japanese		36	@ 37
Japan wax		13¼	@ 13½
Kola nuts		9½	@ 10
Licorice, mass, Greek		10	@ 12
Spanish		14	@ 20
stick, domestic		16½	@ 22½
foreign		25	@ 28
Lithia, carb		1.50	@ 1.75
Lupulin		20	@ 21
Lycopodium		56	@ 65
Manna, large flake		45	@ 50
small flake		—	@ 36
sorts		26	@ 27
Menthol		2.75	@ 3.00
Mercury, bisulphate		54	@ 55
Myrbane oil		7	@ 7¼
Musk, pods, Cab	oz.	6.00	@ 6.50
Tonquin		12.00	@ 16.00
grain, Cab		—	@ 14.00
Canton, extra		—	@ 1.00
Canton, good		15	@ 17
Tonquin		18.00	@ 21.00
Druggists'		14.00	@ 14.50
Synthetic	lb.	5.00	@ 10.00
Naphthaline, balls		1.80	@ 2.00
flakes		2	@ 2½
Nitrate silver, crystals	oz.	38½	@ 42
Nux vomica	lb.	2½	@ 3½
Petrolatum, bbls., amber		2½	@ —
pale yellow		3½	@ 3½
lily white		7½	@ 8
snow white		11	@ 12
Phosphorus		45	@ 1.00
Pilocarpine	oz.	7.50	@ —
Poppy heads	lb.	12	@ 20
Precipitated chalk		3½	@ 4½
Precipitate, red		87	@ 89
white		92	@ 94
Potash, permanganate		9	@ 10
cyanide, bulk		20	@ 24
iodide, bulk		3.15	@ 3.20
Quicksilver		55	@ 57
Resorcin		1.15	@ 1.20
Rochelle salt		20½	@ 21
Salicine, bulk		3.75	@ 3.85
Salol, bulk		88	@ 90
1 lb. bots		1.05	@ 1.10
½ lb. bots		1.10	@ 1.15
¼ lb. bots		1.20	@ 1.25
Santonine, crystals, bulk		8.95	@ 9.00
powdered		9.15	@ 9.20
Seidlitz mixture		17	@ 17½
Sesame oil	gal.	55	@ 65
Soda benzoate	lb.	32	@ 35
salicylate		32	@ 34
Spermaceti, block		—	@ 26
cakes		—	@ 27
St. John's bread		3	@ 3½
Strontia, nitrate		7	@ 9
Strychnine, crystals, bulk	oz.	70	@ —
Styrax		15	@ 17
Sugar of milk, cob		20	@ 22
powdered		15	@ —
Sulphur, roll		1.85	@ 2.15
flour		2.00	@ 2.40
flowers		2.20	@ 2.60
Tamarinds	keg.	1.75	@ 2.00
Thymol	lb.	1.70	@ 1.75
Vanillin	oz.	35	@ 40
Venice, turpentine	lb.	11	@ 14
Zinc, chloride, gran		4¾	@ 5
sulphate		2	@ 2½

Balsams.

Copaiba: Central American	lb.	30	@ 32
Para		37	@ 40
solidifiable		40	@ 45
Fir, Canada	gal.	3.10	@ 3.20
Oregon		70	@ 80
Peru	lb.	1.00	@ 1.05
Tolu		20	@ 22

Barks.

Angostura	lb.	30	@ 35
Bayberry		12	@ 14
Black haw, of root		—	@ 17
of tree		—	@ 7
Buckthorn		5	@ 6
Cascara sagrada		5½	@ 9
Cascarilla, quills		14	@ 15
ordinary		10	@ 11
Canella alba		11	@ 12
Cinchona—red, quills		20	@ 25
broken		16	@ 20
yellow, quills		22	@ 30
broken		15	@ 20
Condurango		11	@ 12
Coto		50	@ 55
Cottonroot		8	@ 10
Cramp		7	@ 9
Dogwood, Jamaica		6	@ 7
Elm, select		20	@ 24
Mezereon		8	@ 10
Oak, red		2	@ 4
white		3	@ —
Orange peel, bitter, Curacao, ¼s		2¼	@ 2¾
sweet, Malaga, pieces		5½	@ 6
quarters		9	@ 9½
sweet, Trieste		4½	@ 5
Prickly ash, Southern		12	@ 18
Western		13	@ 14
Pomegranate, of fruit		7	@ 9
of root		15	@ 15½
Quebracho		10	@ 11
Sassafras		12	@ 15
Simaruba		18	@ 20
Soap, whole		4½	@ 4¾
cut		5½	@ 6
Whaoo, root of		—	@ 30
of tree		12	@ 18
White pine		5	@ 6
White poplar		3½	@ 4
Wild cherry		6	@ 9
Witch hazel		3½	@ 4

Beans.

Calabar	lb.	13	@ 15
St. Ignatius		12	@ 16
Tonka, Angostura		60	@ 65
Para		15	@ 20
Surinam		25	@ 30
Vanilla, Mexican, whole		2.75	@ 5.50
cuts		1.75	@ 2.50
Bourbon		1.00	@ 3.00
Tahiti		45	@ 1.00

Berries.

Cubeb, whole	lb.	7½	@ 9
powdered		11	@ 13
Fish (cocculus indicus)		2¾	@ 3
Juniper		2½	@ 2½
Laurel		4½	@ 5
Prickly ash		15	@ 16
Saw palmetto		13	@ 15

Essential Oils.

Almond bitter	lb.	3.25	@ 5.00
artificial		80	@ 1.50
sweet, true		37	@ 40
peach-kernel		16	@ 24
Amber, crude		16	@ 18
rectified		18	@ 22
Anise		1.15	@ 1.17½
Bay		2.10	@ 2.25
Bergamot		2.10	@ 2.25
Birch tar, crude		12	@ 15
extra		40	@ 60
Cade		15	@ 20
Cajeput		80	@ 85
Camphor		12	@ 15
Caraway seed		1.00	@ 1.25
Cassia, 75@80%		77½	@ 80
Cedar, leaf		60	@ 65
wood		20	@ 25
Cinnamon, Ceylon, heavy		7.00	@ 8.00
Citronella		42½	@ 45
Cloves, cases		77½	@ 80
bottles		80	@ 82½
Copaiba		65	@ 80
Coriander		9.00	@ 13.00
Croton		75	@ 80
Cubeb		80	@ 85
Cummin		3.00	@ 3.50
Erigeron		55	@ 80
Eucalyptus, Australian		35	@ 70
American		35	@ 60
Fennel seed, sweet		60	@ 1.25
bitter		45	@ 1.00
Geranium rose, African		4.00	@ 5.00
Turkish		1.60	@ 2.00
French		7.50	@ 10.00
Ginger		3.50	@ 6.00
Gingergrass		1.10	@ 1.35
Hemlock		35	@ 40
Juniper berries		80	@ 1.25
wood		17½	@ 30
Lavender, cultivated		2.25	@ 2.50
flowers		2.00	@ 2.50
spike		85	@ 1.25
garden		58	@ 65
Lemon		57½	@ 60
Lemongrass		3.00	@ 3.25
Limes, expressed		1.50	@ 1.60
distilled		50	@ 55
Linaloe		2.00	@ 2.50
Mace, distilled		1.00	@ 1.10
expressed		65	@ 70
Malaxern		2.00	@ 2.20
Mustard, natural		4.25	@ 4.50
artificial		2.00	@ 3.00
Neroli, petale		45.00	@ 62.00
bigarade		40.00	@ 52.00
Nutmeg		80	@ 90
Orange, bitter		1.85	@ 2.25
sweet		1.70	@ 1.95
Origanum		18	@ 22
Patchouli		5.50	@ 6.50
Pennyroyal		1.00	@ 1.25
Peppermint, tins		2.35	@ 2.50
bottle		3.10	@ 3.25
Petit grains, French		4.00	@ 6.00
South American		1.75	@ 2.00
Pimento		1.75	@ 2.50
Rhodium		1.75	@ 15.00
Rose	oz.	3.75	@ 5.00
Rosemary flowers, French	lb.	62½	@ 80
Trieste		42½	@ 50
Sandalwood, East India		3.25	@ 3.50
West India		1.50	@ 2.00
Australia		2.75	@ 3.00
Sassafras, natural		50	@ 60
artificial		24	@ 26
Safrol		33	@ 35
Savine		75	@ 1.25
Spearmint		4.50	@ 5.00
Spruce		35	@ 40
Tansy		3.65	@ 4.00
Thyme, red, French		75	@ 1.00
white, French		80	@ 1.15
Wintergreen, nat'l (sweet birch)		1.60	@ 1.75
synthetic		40	@ 45
leaf		2.50	@ 2.75
Wormseed, Baltimore		3.00	@ 3.25
Wormwood, pure		3.00	@ 3.25
Ylang ylang		40.00	@ 70.00

Flowers.

Arnica	lb.	9	@ 9½
Calendula		28	@ 33
Chamomile, Roman		16	@ 23
German, true		15	@ 25
Hungarian		9½	@ 11
Clover tops		9	@ 10
Elder		10	@ 11
Insect		15	@ 26
Lavender, ordinary		10	@ 11
select		12	@ 15
hand picked		—	@ 20
Mullein		60	@ 65
Poppy, red		—	@ 85
Rosemary		17	@ 20
Saffron, American		80	@ —
Alicante		4.75	@ 5.50
Valencia		6.25	@ 7.00

Gums.

Aloes Curacao, in boxes	lb.	6½	@ 7
Barbadoes, in gourds		15	@ 16
Cape		8	@ 10
Socotrine		16	@ 20
Ammoniac		18	@ 20
Arabics, firsts		30	@ 35
seconds		20	@ 22
thirds		18	@ 19
fourths		13	@ 14
sorts		6½	@ 11
Asafoetida		14	@ 18
Benzoin, Siam		50	@ 1.00
Sumatra		20	@ 30
Camphor, American, ref'd, bbls.		72	@ —
cases		72½	@ —
Chicle		35	@ 38
Euphorbium		13	@ 15
Galbanum		40	@ 45
Gamboge, pipe		75	@ 80
Guaiac		19	@ 24
Kino		26	@ 30
Mastic		45	@ 48
Myrrh		24	@ 30
Siftings		22	@ 23
Olibanum, siftings		5½	@ —
sorts		6	@ 7
tears		10	@ 12
Sandarac		16	@ 17
Scammony, rosin		2.00	@ 2.10
Aleppo		2.50	@ 2.75
Virgin		3.50	@ 3.00
Senegal, picked		12	@ 20
sorts		7	@ 8½
Spruce		1.25	@ 1.75
Tragacanth, Aleppo firsts		64	@ 68
seconds		50	@ 55
thirds		40	@ 45
fourths		27	@ 35
Turkey, firsts		70	@ 80
seconds		45	@ 55
thirds		35	@ 40

Herbs and Leaves.

Aconite	lb.	8	@ 9
Althea		10	@ 12
Bay		14	@ 20
Belladonna		9	@ 10
Buchu, short		15	@ 17
long		45	@ 50
Cannabis indica, tops		—	@ 1.00
siftings		97½	@ 1.00
Coca, Huanoco		30	@ 35
Truxillo		18	@ 20
Coltsfoot		7	@ 9
Conium		7	@ 8
Damiana		7½	@ 9
Deer tongue		5½	@ 6
Digitalis		7	@ 9
Eucalyptus		4½	@ 4½
Grindelia, robusta		8	@ 9
Henbane		6½	@ 7
Horehound		4½	@ 4½
Jaborandi		12	@ 14
Laurel		3½	@ 4
Lobelia		—	@ 12
Matico		20	@ 25
Marjoram, German		18	@ 20
French		8½	@ 9
Pennyroyal		—	@ 6
Peppermint, American		12½	@ 15
German		25	@ 30
Pichi		14	@ 15
Pulsatilla		7½	@ 8
Prince's pine		8	@ 10
Rose, red		65	@ 75
Rosemary		3½	@ 4
Rue		12	@ 13
Sage, Italian picked		3½	@ 4½
Savory		4	@ 5
Scull cap		12	@ 14
Senna, Alex, whole leaf		17	@ 20
half leaf		9½	@ 11
siftings		5½	@ 6
Tinnevelly		5	@ 10
Stramonium		7½	@ 8
Thyme		3½	@ —
Uva ursi		3½	@ 3½
Witch hazel		4	@ 5
Wormwood, foreign		6½	@ 7
Yerba santa		8½	@ 9

Roots.

Aconite, German	lb.	9½	@ 10
Alkanet		8	@ 8½
Althea, whole		12	@ 13
cut		17	@ 18
Angelica, German		11	@ 13
American		10	@ 11
Arnica		9	@ 18
Arrowroot, Bermuda		35	@ 40
St. Vincent, bbls		6¾	@ 7
Belladonna, Atropa		10	@ 11
Berberis Aquifolium		12	@ 14
Bitter		16	@ 18
Blood		10	@ 12
Blueflag		—	@ 9
Bryonia		8	@ 9
Burdock		—	@ 10
Calamus, bleached		30	@ 35
unbleached		7	@ 8
Cohosh, black		4	@ 5
blue		—	@ 5
Colchicum		11	@ 12
Colombo		4½	@ 8
Culvers		9½	@ 10
Dandelion, German		7	@ 8
Doggrass		5	@ 5½
Galangal		5	@ 6
Geisemium		5	@ 5½
Gentian		4	@ 4½
Ginseng, Southern		6.25	@ 6.50
Northwestern		6.75	@ 7.25
Eastern		7.50	@ 7.75
Ginger, Jamaica, unbleached		9	@ 10
bleached		11	@ 12
Golden Seal		1.27½	@ 1.30
Hellebore, white		5	@ 5½
black		4½	@ 5
powdered		6	@ 7
Hydrangea		10	@ 12
Ipecac, Rio		1.75	@ 1.80
Cartagena		1.75	@ 1.80
Jalap		9½	@ 11
Kava kava		10	@ 11
Lady slipper		45	@ 50
Licorice, in bales		4	@ 4½
selected, bundles		7	@ 9
Lovage, American		65	@ 75
German		8	@ 12
Mandrake		4¾	@ 5¼
Musk, Russian		13	@ 14
Orris, Florentine, bold		7	@ 8
small		5½	@ 6
Verona		4	@ 5
fingers		60	@ 1.25
Pareira brava		10	@ 11
Pellitory		12	@ 13
Pink		30	@ 32
Pleurisy		12	@ 13
Poke		4½	@ 5
Rhatany		11	@ 12
Rhubarb, Canton		35	@ 40
Shensi		65	@ 70
high dried		20	@ 21
clippings		20	@ 50
Sarsaparilla, Honduras		25	@ 30
Mexican		11¼	@ 11½
Senega, Southern		70	@ 75
Western		62	@ 64
Serpentaria		38	@ 40
Skunk cabbage		9	@ 10
Snake, Canada		15	@ 24
Squaw vine		8½	@ 9
Stillingia		5	@ 6
Stone		5	@ 6
Squill		3½	@ 3¾
Unicorn, false		42	@ 45
true		35	@ 40
Valerian, German		12	@ 15
Belgian		6½	@ 7½
English		12	@ 15
Wild yam		5	@ 6
Yellow dock		—	@ 6
Zedoary		7	@ 8

Seeds.

Anise, Italian, sifted	lb.	8½	@ 9
Spanish		6½	@ 9
Germany		6	@ 6½
star		20	@ 21
Canary, Sicily		5½	@ 5½
Smyrna		4¾	@ 5
Caraway, Dutch		6¼	@ 6½
Cardamoms, bleached		20	@ 90
decorticated		28	@ 33
Celery		7¾	@ 8
Colchicum		20	@ 25
Conium		7	@ 7½
Coriander, natural		7	@ 7¾
bleached		8¾	@ 10¾
Cummin, Malta		7	@ 7½
Fennel, German		9	@ 10
Italian		5	@ 5¼
Flax, per bbl		6.00	@ 6.50
ground, per lb		3½	@ 3¾
Fenugreek		2½	@ 2½
Hemp, Russian		2¾	@ 3
Larkspur		25	@ 26
Lobelia		45	@ 50
Millet, natural		2	@ 2½
shelled		4¾	@ 5
Mustard, brown Bari		5½	@ 6
California		5	@ 5½
German		3½	@ 4
Sicily		5½	@ 6
Trieste		7¾	@ 8
yellow, California		4¼	@ 4½
German		3½	@ 4
Poppy		4½	@ 6
Pumpkin		10	@ —
Quince		30	@ 35
Rape, English		3½	@ 4
German		2¾	@ 3¼
Sabadilla		10	@ 11
Stavesacre		9	@ 10
Stramonium		11	@ 12
Strophantus, Kombe		—	@ 1.25
Hispidus		50	@ 55
Sunflower		4½	@ 4¾
Worm, Levant		17½	@ 18
American		7	@ 8

Shellac.

D. C		60	@ —
Diamond I		—	@ 55
V. S. O		58	@ —
Octogon B		—	@ 52
Fine orange		45	@ 47
A. C. Garnet		—	@ 44
T. N		41	@ 43
Button		36	@ 40
Bleached, commercial		37	@ 38
Bone, dried		47	@ 48

Spices.

Cassia, Batavia, No. 1	℔ lb.	22 @	23
Batavia, No. 2		11½@	13
China mats		8 @	8½
cases		9½@	9½
broken		5 @	7½
Saigon rolls		60 @	62
broken		— @	35
buds		20 @	21
Chillies, Japan		10½@	11
Zanzibar		11 @	11¼
Cloves, Amboyna		20 @	21
Zansibar		— @	12½
Clove stems		— @	5
Ginger, Cochin		5 @	5½
African, No. 1		— @	6
Mace, Banda, No. 1		38 @	39
Penang, No. 1		38 @	40
Penang, No. 2		32 @	34
Nutmegs, 105s. to 110s		16 @	16½
Pepper, Acheen		11½@	11¾
Lampong		11½@	11¾
Singapore		12 @	12½
white		17¾@	18
Tellicherry		12½@	13
Pimento, No. 1		5 @	5¼
grinding		— @	5

Chemicals.

Heavy Chemicals.

Alkali, 48 per cent	℔ 100 lbs.	87½@	90
ammonia, high test		75 @	85
Bleach, over 35 per cent		1.25 @	1.30
Salt cake, glass makers'		65 @	67½
Soda ash, carb. 48 per cent		1.20 @	1.30
high test		1.00 @	1.25
Soda, bicarb, English		— @	—
American		1.30 @	1.70
Soda, caustic, domestic.			
60 per cent		1.85 @	1.90
70 per cent		1.75 @	1.85
74 per cent		1.75 @	1.85
78 per cent		1.75 @	1.85
foreign, 60 per cent		— @	—
70 per cent		— @	—
74 per cent		— @	—
76 per cent		1.90 @	1.95
powdered, granulated			
60 per cent		2.50 @	2.60
70 per cent		2.90 @	3.00
Sal, English		85 @	90
American		60 @	70

Acids.

Acid, acetic	℔ 100 lbs.	2.30 @	4.05
chemically pure	℔ lb.	21 @	22
oxalic		4¾@	5.15
pyrolignous		8 @	10
sulphuric, 60 deg.	℔ 100 lbs.	1.10 @	1.30
66 deg		1.20 @	1.30
bulk, 50 deg		14.00 @	15.00
muriatic, 18 deg		1.50 @	1.60
20 deg		1.60 @	1.70
22 deg		1.75 @	2.00
aqua fortis, 36 deg	℔ lb.	4½@	4¾
38 deg		4½@	5
40 deg		4¾@	5¼
42 deg		5¼@	5½
nitric, 36 deg		5½@	6
38 deg		5½@	6
40 deg		6 @	6¼
42 deg		5¾@	6½
tartaric, crystals		29 @	29½
powdered		29½@	29¾

Miscellaneous Chemicals.

Acetate of lime, gray	℔ 100 lbs.	2.35 @	2.40
brown		1.60 @	1.62
Alum, lump		1.75 @	1.85
ground		1.85 @	1.95
powdered		3.00 @	3.25
Aq. am'ia (in dms) 16 deg.	℔ lb.	3¾@	4
18 deg		4 @	4¼
20 deg		3¼@	3½
26 deg		4¾@	5
Ammoniac, sal, gray		5¾@	6
granulated		6½@	6¼
lump		9¼@	9½
Ashes, pot. 1st sorts		5¼@	5½
pearl		7½@	—
Argols, powdered		4 @	4¼
red		3½@	3¾
Arsenic, white		2.90 @	3¼
red		6¾@	7
Barium, chloride	℔ ton.	35.00 @	36.00
Brimstone, crude foreign		22.00 @	—
domestic		22.12½@	22.62½
Cream tartar, crystals, p. c.	℔ lb.	23½@	23¾
powdered, 90 p. c.		23¾@	24
Chlorate of soda		8¾@	9
Chloride of calcium	℔ ton.	10.50 @	11.50
Copperas	℔ lb.	57½@	62½
Glauber's salt		45 @	50
Nitrate of lead		7 @	7¼
Potash, chlorate, crystals		8¼@	9
powdered		8¾@	9½
Carb. calcined 80@85 p. c.		3½@	4¼
calcined 96@98 per cent		4¾@	5
hydrated 80@83 per cent		4 @	5
caustic		4½@	7
Sugar of lead, brown		7¼@	7½
white		9½@	9¾
Saltpeter, crude		4¼@	4½
refined		4½@	5¼
Sulphate, alumina		90 @	1¾
Vitriol, blue		5¼@	5½

Fertilizer Materials.

Ammoniates.

Ammonia sulphate foreign spot	℔ 100 lbs.	3.13 @	3.16
futures		3.16 @	3.18
Ammonia sulphate domestic spot		3.13 @	3.16
futures		3.16 @	3.18
Fish scrap, dried, 10 p. c. ammonia and 14 p. c. bone phosphate, f. o. b. fish works	℔ ton	2.50 &	10
wet, acidulated, 6 p. c. ammonia f. o. b. fish works		2.25 &	35
Ground fish guano, imported, 10 and 11 p. c. ammonia and 15-17 p. c. bone phosphate, c. i. f. N. Y., Balt. or Phila		2.70 &	10
Azotine	℔ unit.	2.55 @	2.60
Tankage, concentrated, 15@16 p. c., f. o. b. Chicago		2.15 @	2.20
Tankage, 10-11 p. c. and 10-15 p. c., f. o. b. Chicago		2.25 &	10
Tankage, 9 and 20 p. c., f. o. b. Chicago		2.10 &	10
Tankage, 7 and 30 p. c., f. o. b. Chicago	℔ ton.	16.00 @	17.00
Tankage, 6 and 35 p. c., f. o. b. Chicago		16.00 @	17.00
Garbage, tankage		8.00 @	9.00
Hoofmeal, f.o.b. Chicago	℔ unit	2.40 @	—
Dried blood, 12-13 p. c. ammonia, f. o. b. New York		2.60 @	2.65
Dried blood, high grade, f. o. b. Chicago		2.40 @	2.45
Nitrate of soda, 96% spot, per 100 lbs		2.20 @	2.22½
future 96%		2.22½@	2.25
Nitrate of soda, 95% spot		2.17½@	2.20
future 95%		2.20 @	2.22½

Phosphates.

Acid phosphate	℔ unit.	60 @	67½
Bones, raw	℔ ton.	15.00 @	17.00
ground, steamed, 3 p. c. ammonia and 50 p. c. bone phosphate		22.00 @	23.00
ground steamed, 1¼ p. c. ammonia and 60 p. c. bone phosphate		19.00 @	21.00
unground, steamed		18.00 @	20.00
hard boiled		20.00 @	22.00
Bone black oil discard		12.00 @	16.00
sugar discard		16.00 @	20.00
Phosphate rock, ground, f. o. b. Charleston, 2,000 lbs		5.00 @	5.25
So. Carolina phosphate rock, undried, per 2,400 lbs., f. o. b. Ashley River		3.50 @	3.75
So. Carolina phosphate rock, hot air dried, f. o. b. Ashley River		4.00 @	—
Florida land pebble phosphate rock, f. o. b. Fernandina, per ton		4.00 @	4.25
Florida high grade phosphate hard rock, f. o. b. Fernandina, per ton		7.00 @	7.25
Tennessee phosphate rock f. o. b. Mt Pleasant domestic, per ton		3.55 @	4.00
Tennessee phosphate rock f. o. b. Mt Pleasant, export, per ton		4.00 @	4.30

Potashes.

Muriate potash, basis 80 p. c., spot	℔ 100 lbs.	1.95 @	1.98
Muriate potash, basis 80 p. c., future		1.90 @	1.93
Manure salt, 20 p. c., actu'l p'ash		14.75 @	15.40
dbl, m're salt, 48 p. c.		1.16½@	1.19½
Sulphate potash (basis 90 p. c.)		2.18½@	2.21½
Kainit, in bags, 2,240 lbs		9.50 @	—
Kainit, in bulk, do		8.50 @	—

Pyrites.

Spanish crude, unwashed fines, per unit averaging 48 to 52 p. c. of sulphur ex ship		9 @	10
Spanish smalls washed ore		7 @	8
Lump ore, washed, averaging 48 to 52 p. c. of sulphur		10 @	10½
Lump, non arsenical high grade ore		11 @	12
Lump, arsenical (not washed)		10½@	11
Domestic pyrites, fines, averaging 45 p. c. sulphur, f. o. b. shipping port		9¼@	10
Furnace size, averaging 45 p. c. sulphur, f. o. b. shipping port, per unit		10½@	11

Dyestuffs.

Acetate of soda	℔ lb.	4½@	4½
Acid, gallic		53 @	55
picric, best crystals		22 @	28
tannic, commercial		35 @	37
crystals		58 @	65
Albumen, egg		48 @	65
blood		20 @	27
Alizarine, red		15½@	16½
Aniline, oil		10 @	10¼
salt, crystals		8¾@	9
Annatto		— @	14
fine		— @	32
seed		10 @	12
Antimony, oxymurite		4 @	5
salt, 75%		15 @	16
65%		13½@	14
47%		11½@	12
Bichloride of tin, 50°		9¾@	—
45°		9¼@	—
Bichromate of potash, American		8½@	8¾
Bichromate of soda		6¾@	6¾
Bisulphite of soda		.80@	1¾
Carmine of indigo		60 @	70
Cochineal, Teneriffe, silver		48 @	50
black		48 @	50
gray black		48 @	50
Cudbear, French		12 @	15
concentrates		23 @	28
English		9 @	12
Cutch, mat		4½@	5
boxes		5 @	7
refined, in boxes		6 @	8
slabs		7½@	8
Dextrine, imported potato		6¾@	7⅞
domestic potato		5½@	6
corn		2.55 @	2¾
Divi-divi	℔ ton.	35.00 @	40.00
Flavine	℔ lb.	23 @	40
Fustic, stick	℔ ton.	18.00 @	20.00
young root		31.00 @	35.00
Gambier		4½@	4½
cube No. 1		6 @	6½
cube No. 2		5½@	5¾
Hypo. of soda, Am., bbls.	℔ cwt.	1.40 @	1.50
kgs.		1.60 @	1.70
German, cks		1.65 @	1¾
kgs		2.00 @	2¼
Indigo, Bengal, low grade	℔ lb.	52½@	55
medium		60 @	65
high grade		75 @	85
Kurpahs		47½@	60
Guatemala		35 @	70
Manila		43 @	45
Madras		43 @	45
J. (synthetic)		18 @	20
Indigotine		95 @	1.80
Logwood, stick	℔ ton.	15.00 @	19.00
roots		14.00 @	16.00
Madder, Dutch	℔ lb.	8½@	10
French		— @	—
Myrabolams		2 @	2½
Muriate of tin, 36°		9 @	9¾
52°		15 @	15¾
Nitrate of iron, commercial		1¾@	1¾
true		4 @	4¼
Nutgalls, blue Aleppo		17 @	18
Chinese		14 @	14½
Persian, berries		— @	—
Phosphate of soda		1.90 @	2¼
Prussiate of potash, yellow		— @	14
red		35 @	40
Prussiate of soda		9 @	9½
Quercitron	℔ ton.	18.00 @	20.00
Sago flour	℔ lb.	1¾@	1⅞
Salts of tartar		4¼@	6
Silicate soda, liquid		¾@	1¼
crystals		2 @	2½
Soluble oil, 50%		6½@	6¾
75@85%		9 @	13
Starch, corn, pearl, in bbls		1.95 @	—
in bags		1.80 @	—
potato		3½@	4
rice		6¼@	7½
wheat		5 @	6
Stannate of soda		10 @	20
Sumac, Sicily No. 1	℔ ton.	45.00 @	46.00
No. 2		42.00 @	43.00
Virginia		— @	—
Tapioca flour	℔ lb.	1.85@	2¾
Tartar emetic		22 @	24
Tin crystals		21 @	22½
Turmeric, Madras		4½@	4¾
Aleppe		4 @	4½
Pubna		3½@	3¾
Cochin, bulbs		2 @	3
Turkey red oil		5½@	15
Vanadiate ammonium	℔ oz.	60 @	75
Zinc, dust	℔ lb.	5½@	6

Chipped Dyewoods, Etc.

Barwood	℔ lb.	2 @	2¼
Camwood		6 @	7
Fustic		1½@	2
Hypernic		2¾@	3
Logwood		1¼@	1½
Red sanders		2¾@	3¼

Extracts.

Archil, double	℔ lb.	8 @	10
concentrated		14 @	18
Barberry, French		22 @	28
Chestnut		2¾@	3
Oak		2¾@	3¼
Hemlock		2¾@	3¼
Fustic, solid		8 @	11
liquid, 51°		6 @	8
Gall		12 @	15
Indigo		6 @	10
Logwood, solid		6 @	12
liquid, 51°		5 @	10
42°		4 @	6
crystals		12 @	15
Quebracho, solid		5 @	6
51°		3 @	3¼
42°		2¾@	3
Quercitron		3 @	3¼
Persian berry		9 @	15
Sumac		3 @	6

Comparative Prices.

On Oct. 13, 1902, and corresponding dates in 1903 and 1904:—

Chemicals.	1904.	1903.	1902.
Bleaching powder	$1.25	$1.00	$1.60
Brimstone	21.40	21.25	21.25
Caustic soda, 70 p. c.	1.75	1.75	1.85
Caustic soda, 60 p. c.	1.87½	1.90	1.95
Sal Soda, Am.	.90	.90	.95
Soda, ash, 48 p. c. carb.	1.25	—	—
Soda, alkali, 48 p. c.	.87½	.90	.92½
Soda, nitrate	2.20	2.25	1.87½
Cream tartar, crystals	.24½	.24¼	.22¾
Muriate of potash	1.88	1.83	1.80
Chlorate of potash	.06¾	.07	.07½
Kainit	9.05	9.30	9.05
Paints.			
White lead in oil	.06	.06¼	.05¼
Litharge, Am. pow'd	.05¾	.05¾	.04¾
Paris green	.11½	.11½	.12½
Orange mineral	.08	.08	.07¾
Ven. red, English	1.15	1.25	1.80
Ven. red, American	.50	.50	.50
Barytes	17.50	17.00	17.00
Whiting, commercial	.45	.45	.40
Drugs.			
Opium	2.70	3.25	2.27½
Morphine, domestic	2.10	2.10	1.90
Quinine	.23	.25	.20
Alcohol	2.40	2.43	2.47
Borax, city	.07½	.07½	.07¼
Beans, tonka (Ang.)	.55	.60	.67½
Cubeb, whole	.07½	.07½	.08
Cuttlefish	.15	.15½	.20
Glycerine, C. P., drums	.13½	.14½	.14½
Oil, castor, city	.09¾	.09¾	.09¾
Oil, cassia	.75	.75	.67½
Oil, codliver, Nor	44.00	120.00	37.00
Oil, peppermint, tins	3.60	2.90	—
Oil, sassafras	.50	.40	.40
Quicksilver	.55	.62	.64½
Asafœtida	.19	.22	.15
Gum, arabic, sorts	.05½	.07	.08½
Camphor, bbls	.62	—	—
Shellac, D. C.	.98	—	.39
Senna, Alex. Nat'l	.17	.21	.21
Senega root	—	.75	.52
Ipecac	1.30	1.25	1.90
Jalap	.11	.09½	.10
Canary seed, Smyrna	.09	.03¾	.03¾
Caraway seed, Dutch	.04¾	.05	.03½
Mustard seed, Cal., yel.	.04½	.04½	.04¾
Rapeseed, German	.02¾	.02¾	.03
Oils.			
Cottonseed, prime, S. Y.	.28	.40	.37½
Olive, Sicily	.54	.49	.53
Cocoanut, Ceylon	.07¼	.05¾	.06¼
Lard, prime, city	.60	.62	.80
Linseed, domestic	.41	.39	.40
Menhaden, prime, cde	.21	.22½	—
Sperm, bl'ched, winte	.58	.69	.78
Whale, bl'ched, winter	.45	.48	.48
Oil cake, Western	27.00	32.75	28.50
Spirits turpentine	.58½	.60½	.56½
Dyestuffs.			
Bichromate potash, Am.	.08¼	.08¼	.08¼
Cochineal, Teneriffe, S.	.50	.33	.17
Cutch, bag	.04¼	.04½	.04½
Gambier	.04½	.05¾	.06¼
Indigo, Bengal, h. gde	.95	.90	.90
Prussiate potash, yel	.14	.14½	.14
Starch, corn	1.92	2.25	2.72
Sumac, Sicily, price	44.00	46.00	48.00

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DRUG MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on pages 31, 32 and 33.

Saturday Noon, Oct. 14, 1905.

ADVANCED.	DECLINED.
Balm of Gilead buds, 1c.	Lycopodium, 2c.
Cuttlefish, large jewel-ers' bone, 10c.	Ergot, 1c.
Golden seal root, 7½c.	Japan wax, ¼c.
Lady slipper root, 1c.	
Sunflower seed, ¼c.	

Opium

While nothing is openly named below $3.30 for cases, the lack of important demand is believed to have questioned the stability of the market. It is known that the $3.30 quotation has failed to secure an order, but whether it was filled at some concession could not be determined. Primary advices continue to denote strength abroad and our Smyrna correspondent cables the arrival there to October 13 as 1,128 cases, against 3,695 cases to October 15 last year. Broken lots on spot are held up to $3.35, while powdered, which is the object of lively competition, is available at $3.70. Cable advices from our correspondents in Turkey are as follows:

Smyrna, Oct. 13, 1905.

There have been sales of 74 cases at 8s. 4d.@8s. 6d. The market is firmer. Arrivals to date, 1,128 cases.

Constantinople, Oct. 13, 1905.

Sales have been made of 2 cases of old Zilles at 9s. 8d. The market is firmer.

Mail correspondence follows:—

Smyrna, Sept. 22, 1905.

The arrivals to date amount to 1,012 cases, against 3,540 at the same period last year. Sales from September 16 to 22, 1905, were as follows:—For America—76 cases current at 7s. 6d.@7s. 8d.; 15 cases new Carahissar at 8s. 1d.; 15 cases common Yerli at 8s. 3d.; 28 cases old Carahissar at 8s. 6d.; 1 case rich Yerli at 8s 10d.; 2 cases common Boghaditz at 8s. 2d.; for England—2 cases Carahissar at 8s. 1d.; for the Continent—9 cases Carahissar at 8s 1d.@8s. 8d.

Our market is decidedly firmer, with an advance of three pence per lb. in rich grades. Stocks of good quality are much reduced.

Constantinople, Sept. 23, 1905.

The market has been quieter during the last two weeks, owing to the decline in Smyrna, which was brought about by the scare consequent on anarchistic events. The position is really a curious one. The crop has yielded about 2,600 cases, one of the smallest on record, and yet in the face of it, prices have declined. Large importers must have supplied their wants for a considerable period ahead at low prices current last season and can afford to look on for some little time to come. Their future actions will, no doubt, be guided by the success or failure of autumn sowings, which will commence as soon as the prolonged drought comes to an end. Meanwhile we do not expect any further decline on this side, as with grain crops moving, native holders will not be obliged to sell for monetary reasons, as has been the case hitherto.

Morphine

The strengthening tendency of opium which has prevailed the greater part of this year, has aroused expectations that its influence would be manifested in a higher basis for this product, but as yet the old schedule remains in effect at $2.10@2.20 for bulk, as to quantity. There has been no change in prices since July, 1903 during which interval the value of opium has been in frequent fluctuation, touching its lowest point at $2.62½ and its highest at $3.50 for cases.

Quinine

The market continues in the same uninteresting position, and the movement seldom involves any quantities of moment. The Amsterdam bark sale does not take place until November, and there is not likely to be anything in the interim to warrant any change in makers' schedule. The London bark sale is scheduled for next Tuesday, but little interest is attached to this event. Makers' prices are on the basis of 20c. for bulk and second hands quote Java at 19c., but outside German is available at 19¼c.

Miscellaneous.

ACETONE.—There is no late change to note in prices, spot being held at 16@16¼c. Competition remains quite a feature of the market, with the abatement of important export inquiry.

ACID, CARBOLIC.—In some quarters 13c. is firmly maintained for drums and ready sales are reported at this figure. We find that 12½c., which was openly named a couple of weeks ago, is still in effect.

ACID, CITRIC.—The markets abroad are reported easier and with the check to important consuming inquiry, second hands are disposed to grant further concessions from maker's schedule of 38@38½c.

ALCOHOL.—The demand is well sustained for both grain and wood, and quotations reflect a full measure of stability as follows:—Grain, $2.49@2.51, as to terms of sale; wood, 95 per cent., 70c.; 97 per cent., 75c.

ANTIMONY.—The principal holder of powdered needle still offers round lots at 9½c., but up to 11c. is named by other dealers whose stocks are somewhat limited. There is said to be nothing in the crude situation to warrant any reaction in values.

BALM OF GILEAD BUDS.—The manifestation of seasonable inquiries is adding steady strength to the market, especially as primary stocks have been well absorbed. Sales have been made at 43c., and up to 45c., is now maintained.

BEESWAX.—Spot stocks of domestic are light, and late arrivals of foreign have been well taken. This condition imparts a steady tendency to quotations which are 32½@33c. for good yellow crude and 35@36c. for refined.

CANTHARIDES.—We find the 47c. quotation still current for whole Chinese flies, but with the lot available at this figure out of the market, it is likely that the 50c level now maintained by some holders will be generally in effect. There is a good movement in powdered Chinese flies at 52@55c. For Russian $1.25 is seemingly an inside quotation for both whole and powdered.

CARNAUBA WAX.—There is no check to the strong tendency of values, the continued activity of the demand having reduced stocks to a point when some concern is being manifested over replenishment. The European markets are reported to be almost depleted and Brazil has, we are informed, nothing further to offer of last year's crop. No news has been received as to the outlook for the present production. Current quotations are:—No. 1, 48½@50c.; No. 2, 39@42c.; No. 3, 31@32c.; North Country, 32@33c.

COCOA BUTTER.—Some disappointment is expressed at the backward state of the demand, which at this season ought to be more actively manifested. The large consumers do not seem to have provided for anything like their requirements, but their entry into the market is confidently awaited in the near future. Prime Dutch butter is available at 28c. and the range extends to 29½c. for Van Houten and Cadbury.

CODLIVER OIL.—Some jobbing interest has been stimulated by the advance of the season, but the movement is as yet light. Confidence is expressed in an upward tendency of values as soon as the consuming demand assumes important proportions. Spot values are well sustained at $27@30, as to brand, quantity and seller. For prompt shipment from Norway, $22 f. o b. is named.

CUTTLEFISH.—A leading holder of large jewelers' bone announces an advance to 70c. and the stocks in the few other hands are likely to be maintained on the same level. Small jewelers' bone is available at 40c.

ERGOT.—The tendency toward a more normal basis continues and Russian is offered at 41c. Spanish is in a stronger position than the Russian, but for this variety 43@45c. is named.

GLUCOSE.—The market has been unsettled by a break of 15 points in cornstarch, when the expectations of the trade were generally in an advance The renewal of powerful competition is believed to be the factor for the decline. Glucose as yet shows no change from 1.91c. for 42 deg., carload lots on spot.

GLYCERINE.—The improvement in the demand for C. P. is general, and under this condition, which promises to be augmented with the advance of the season, a steady tone characterizes values at 12@12¼c. for bulk, containers extra, and at 13@13¼c. for cans. Dynamite is sustained at 10⅞@11c. We have the following from our correspondent on crude:—

Paris, Sept. 29, 1905.

Several of our glycerine sellers having been disposed to lower their demands, a good volume of business occurred during the week, chiefly for goods for prompt shipment and over the balance of this year.

Over next year, sellers are not so well disposed, but it is easy to foresee that, if nothing comes to disturb the market, they will accept buyers' prices, which are, however, a little higher than the ones paid for prompt ship-

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Cinchona Bark, Calisaya
Cinchona Bark, Red
Bay Rum, Porto Rico and St. Thomas
Potters' Blue
Bole Armenia
Colchicum Seed
Matico Leaves
Malva Flowers
Calendula Flowers
Grains of Paradise
Socotrine Aloes, True
Gum Asafoetida
Gum Elemi
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HAARLEM OIL.—Arrivals continue slow and spot stocks are at a premium, with $1.95@2.00 steadily maintained. Sales for arrival have been reported at $1.90, but some holders now name $1.95 in this position.

JAPAN WAX.—The easier tendency of primary values has left its impression on the local situation, and 13¼c. is available. Goods for arrival have been offered at a material concession from this figure.

LYCOPODIUM.—Our Hamburg correspondent cables a stronger market, and there is little doubt that this will be seized upon to check the weakening influence of spot values. Its effect had not been appreciably manifested at the close on Saturday, unlabeled being in evidence at 56c. Pollitz is still maintained to 65c.

MANNA.—The market is almost bare of small flake and what little might be found would probably command 36c. A leading holder lately sold out at 35c., but offers some for nearby arrival at 32c.

MENTHOL.—The market at the close on Saturday showed further evidence of strength, cables from Japan quoting up to 11s. 3d. Sales earlier in the week were reported at 8s. 9d. Cable advices from London on Friday announced sales at 9s. 3d. Under these conditions the reserve of local holders became more accentuated and $3@3.25 was the prevailing range of quotations. We found $2.75 still named, but it is likely to be withdrawn by the time of publication. Other particulars will oe found on the editorial page.

VANILLIN.—Competition shows no abatement with the steady maintained position of oil of cloves, and while we find nothing openly named below 35c. for bulk, it is reported that concessions have been made from this figure to induce sales.

Balsams.

The firm position maintained by first hands for Central American copaiba imports a steady tone to the local situation, and there is no disposition on the part of dealers to shade 30c. for prime goods. There is no early relief in sight from the scarcity of the Para variety on spot, and the market is firmer, with 37c. generally named as an inside quotation. The firs are without particular interest, and quotations remain at $3.10@3.20 for Canada and at 70@80c. for Oregon, as to style of package and quantity.

Barks.

Little whole bayberry bark is offered and for some lots 14c. is asked, but 12c. is still named. Powdered is available at practically the same basis.

Sifted sassafras bark is obtainable at 12c., but enough faith is manifested in the strong position of the market to warrant some holders in naming up to 15c.

More inquiry is to be noted, with the advance of the consuming season, in white pine and wild cherry, quotations for which are well sustained at 5@6c. for the former and at 6@9c. for the latter.

Cottonroot and cramp are commanding more buying interest and, while firmer views prevail in some quarters, we find 8c. for the former and 7c. for the latter still in effect.

Beans.

Mexican vanilla beans continue in fair jobbing request, and the tendency of prices is, on the whole, steady at the lately-prevailing basis of $2.75@5.50 for whole and $1.75@2.50 for cuts. The total arrivals from Mexico to October 7 are placed at 1,673 cases, and while about 400 cases are left there, holders are reported to be disposed toward a firmer stand for the balance. Bourbons are receiving little attention and values remain on the low level of $1.00@3.00.

Angostura tonka beans are yet available at 60c., but some holders decline to quote to this level.

Berries.

Juniper berries show a firmly sustained tendency, and in several quarters 2½c. is an inside quotation, but we find 2¼c. yet available. This figure has also been named for arrival.

The market for cubeb berries is undoubtedly stronger, and in most quarters there is no disposition to shade 8c. for ordinary, but we find 7½c. still named. For choice stemless up to 9c. is maintained. According to our London correspondent, the stocks there on September 30 last amounted to 477 bags, against 694 bags on the same day last year.

For saw palmetto berries 13@15c. remains in effect for prime, with the bulk of available stocks in the hands of the dealer naming the higher price.

Essential Oils.

Peppermint retains a full degree of firmness, and with the strengthening tendency in the West, higher prices are freely predicted on spot in the early future. Mail advices dated Oct. 7 from Michigan, state that the oil is entirely out of growers' hands, and while dealers could furnish reasonable amounts, they were not disposed to offer. Higher rates were said to have been paid to the growers lately, and $2.45 was considered the most favorable figure that was available in the West. The estimate of 200,000 lbs., made in these columns earlier in the season, has been confirmed this week, but of this quantity about 25,000 is said to be left unsold. On spot $2.35 seems to be an inside quotation for prime bulk oil, and at this figure it is likely that only jobbing quantities could be found. Bottled oil is held at $3.15 by the bottler, but in outside quarters $3.10 can be done. The Japanese oil manifests a firmer tendency and higher views are maintained by some holders. Some may be found at $1.65, but $170@1.75 is more generally named.

In reply to a cable inquiry this week, bergamot of 36 per cent. esther was quoted at a figure that would bring the cost here to $2.10 on a lot of 150 cases. Our Messina correspondent reports that the available stock there on September 24 last was 7,000 lbs., an amount sufficient for the requirements before the new oil was available. The spot basis is without change from $2.10 @$2.25.

The strength of primary conditions

for lemon is more evidenced on spot, with the cost of certificate oil placed at 55c. It is doubtful whether anything below 57½c. is now available for pure goods.

Sweet orange is maintained with equal stability, and $1.70 is undoubtedly an inside quotation and applies only to limited quantities. There are more holders at $1.75. Our Messina correspondent writes as follows:—

Messina, Sept. 24, 1905.

Since our last report matters in the essential oil trade have shown little change, with exception for bergamot, which has undergone a further improvement in prices. Old stock is nearly exhausted, the present available supply does not exceed, in fact, a round lot of about 7,000 pounds, which, of course, is hardly sufficient to meet next requirements until new oil is available. This has caused prices for spot delivery to advance again, thus reaching the highest level of the season, and will undoubtedly prove another factor, which may have an important influence in the future market, also considering the fact that the crop is estimated to be much below an average one.

New oil of sweet orange begins now to appear on the market, and it is generally conceded that the crop has proved smaller than previously estimated. A decreasing output of extraction is also reported, and this, of course, will comparatively restrict the amount of oil which could normally be produced and will consequently increase the original cost of each pound of oil produced. According to our information there still remains, however, some 20,000 or 25,000 pounds of old oil in the hands of farmers and speculators, and this has kept prices from advancing, otherwise we would likely have seen this oil selling at the most exaggerated figures.

Contrary to the usual, oil of lemon new crop future delivery is now dearer than the old one for spot delivery on account of the general belief that the production promises to be smaller than the last year's. The fact is that no bulk contract deliveries can possibly be arranged here, owing to the unwillingness of the majority of makers to operate ahead in the expectation of a better market in their favor. Present quotations can be summed up as follows:—Spot delivery, lemon, 50c.; orange, $1.60; bergamot, $2.15; new crop future delivery, lemon, 53c.; orange, $1.60; bergamot, $1.95.

Late advices from the West show a stronger stand on the part of holders of new crop spearmint and tansy, $4.75 @5.00 being named for the former and $4.00@4.25 for the latter. These views prevail in some local quarters, but we find $4.50 for spearmint and $3.65 for tansy quoted.

While 42½@45c. remains the prevailing range for citronella, it is believed that concessions are being granted to induce sales.

Inquiries this week in the primary markets found no low test cassia available and for high test oil stronger views were evidenced. For 75@80 per cent. spot, 77½c. is not likely to be shaded. A more seasonable demand is manifested for anise, with $1.15@1.17½ well sustained for 15 deg. oil. Some lower test is available at $1.12½.

A stronger tone characterizes natural sassafras and wintergreen, but without quotable change from 50@60c. for the former and $1.60@1.75 for the latter.

Natural Japan camphor oil of light gravity is scarce and with nothing available for early shipment up to 15c is now quoted. Some grades are offered at 12c.

Baltimore wormseed oil is in very light supply on spot and inquiries in Baltimore disclosed the fact that the new crop is several weeks distant. We find that $3 is still quoted here, but $3.25 is more generally named.

An easy tone continues to characterize cedar leaf, but there is no change from 60@65c. Cedar wood is well sustained at 20@25c.

Flowers.

The movement in American saffron remains slight, buyers operating on a scale of actual needs and apparently maintaining their faith in an easier market. Bales or broken lots are nominally held at 80c.

For bright new Roman chamomile flowers 23c. has been paid in bale lots, but some older goods are on the market at 16c.

Interest in lavender flowers seems to be abated, but without appreciable reflection on the relatively high level of current prices.

Arnica flowers are sustained at 9@ 9½c.

Gums.

American refined camphor is the subject of considerable interest and expectations are confidently manifested in an early advance over the current basis of 72c. in bbls. and 72½c. in cases. The London market has been reported at 3s. It is stated that none of the American refiners is willing to enter contracts at these terms under the present uncertainty of crude supplies. The Japanese refined product shows a strengthening tendency and on the basis of late cable advices the cost to import is placed at more than 75c. for ozs.

Curacao aloes continue strong at 6½@ 7c., a level that would seem to be warranted by the position of first hands. A leading importer states that the demand is far in excess of the visible supply, but there is not likely to be a further advance by first hands. Supplies of Barbadoes aloes in gourds are low and little is expected in this form from the gathering sections, most of the goods being packed in boxes. Gourds on spot are held at 15@16c., according to quantity and holder.

For the amber Arabic sorts 6½@6¾c. is the prevailing range of quotations, and some of the finest grades of white are held up to 12c. The picked gums are receiving little attention.

Chicle is without important inquiry, consumers' stocks being regarded as of fair proportions. There is apparently no disposition to shade 35 for carload lots of Mexican gum. Jobbing parcels are maintained to 38c.

Herbs and Leaves.

Laurel leaves reflect a steady improvement, and most holders name 4c. We find our lately-prevailing quotation of 3¾c. still in effect. Some difficulty has been experienced in obtaining definite offers from abroad.

A late test of the market found that no prime green short buchu was offered below 15c. and some of the goods in evidence at this figure were not especially desirable. Advices from Cape Town indicate a firmer stand on the part of the holders of what is left of the last crop.

Grindelia robusta is without late change from 8@9c., while yerba santa is maintained at 8½@9c.

The cost to import uva ursi is placed at an advance to 3¼c., which has lately been in effect on spot. While this quotation may be repeated at this time, it is of doubtful tenure under current conditions.

Roots.

Golden seal has commanded chief attention under this heading during the week and with the improved demand both for home and foreign wants, market is inclined toward a firmer basis. Early in the week $1.20 was declined for 500 lb. and everything below $1.27½ is now said to have been taken. From the country $1.25 is named.

The statistical strength of ipecac in London is shown by the fact that arrivals during September amounted to 40 bales, and the deliveries to 88 bales, leaving the stock on September 30 on hand at 116 bales, against 438 and 787 bales on the same day in 1904 and 1903, respectively. There is no appreciable abatement of the stability of spot values, $1.75@1.80 remaining in effect for both Rio and Cartagena.

There has been no relief from the exhaustion of spot stocks of burdock, new crop of foreign foot not being available before November. Nothing is in sight from domestic sources of supply.

Lady slipper is firmly held, and 45c. is now apparently an inside quotation.

The market for aconite root is very lightly supplied, and 9½@10c. remains firmly in effect.

A quiet market prevails for Mexican sarsaparilla, and there is little doubt that 11c. is readily available.

Seeds.

The 7¾c. quotation for celery seed again prevails, although it is believed that goods could not be imported to warrant the selling basis.

German anise is held at 6@6¼c., at which basis holders are not eager sellers under the stronger position of primary quarters.

Primary advices indicate a firmer tendency to canary seed, but local values remain at 4¾@5c. for Smyrna and at 5¼@5½c. for Sicily.

Sunflower seed is stronger, under the

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lightness of stocks and 4½@5c. is now current.

Shellac.

The firm tendency of values is well sustained under an active consuming movement and the lightness of free goods, especially T. N. The Clan McMillan cargo turned out hard blocked for all the bags and matted for cases, practically nothing having been free. The Seminole is here with 1,367 packages of various marks, from which little free goods are expected. Calcutta is quiet on account of the holidays, but the prospects there are believed to be for firmer values. London is about steady. The London arrivals during September were 5,336 cases, while the deliveries amounted to 4,444 cases, leaving the stocks on October 1 at 23,173 cases, against 26,940 and 15,226 cases on the same day in 1904 and 1903, respectively. Spot values are without quotable change. For T. N. 41c. is named for bags and up to 43c. in cases. Bleached remains at 37@38c. for commercial and at 47@48c. for bone dried.

Spices.

Practically unchanged conditions govern this market, and while the jobbing movement is of fair proportions, interest in invoice transnactions seems to be at a standstill. The primary markets have reported no new developments. Cloves have been quiet, and there is some disposition to shade 12½c. for Zanzibars, which has lately been in effect. London mail advices report a steady market for cloves, with spot held at 5¾@6d., and sales for October-December delivery announced at 5¾@5⅞d. Arrivals of pepper continue liberal and Singapore black on spot is available at 12c. Other descriptions are without material change. Cassia buds are closely held and firmly maintained at 20@21c.

(Special Cablegram to the Reporter.)

London Closing Prices.

London, Oct. 14, 1905.

Quinine spot, sellers at 9d., December at 9¼d. Shellac, 178s. 6d. per cwt. Menthol, ipecac and refined Japan camphor are higher.

(Special Correspondence to the Reporter.)

London Drug Market.

London, Sept. 29, 1905.

On the Mincing Lane markets little activity prevailed this week, but prices generally are well maintained and are even higher in several instances. Crude Japan antimony has declined, canary seed is cheaper for Turkey and cummin is better. Ipecac is selling privately at full rates for Rio. American and Japan peppermint oils have advanced. Quinine is dull. Shellac has been selling at improved rates and Japan wax is slightly easier.

Quinine is unchanged, the value of second hand spot parcels of the best German brands remaining at 9@9¼d., but without any signs of increased interest being taken in the article. However, it is reported that a limited movement of stock has taken place from manufacturers at the official quotation of 10½d. Later a small spot business has been done at 9d., spot in second hand best German brands, but the market remains dull.

Shellac shows latterly more improvement and fair T. N. orange has been selling on the spot at 178@179s. per cwt., and good to superior at 180@185s. A. C. garnet lac is scarce at 182s. 6d. for cakey and blocky, and G. A. L. has been sold at 182s. 6d. for blocky. Buttons are quiet but steady at previous rates. Fine grades of orange are held for 195@200s., according to quality, and T. N. futures are showing renewed firmness at 179s. for October delivery and at 181s. for December delivery.

Crude Japan antimony comes now nearer £35 per ton, as compared with £38 a week ago. Areca nuts are quoted at 23s. per cwt., but a few sales have been effected at 22s. 6d., the article being very scarce. Refined camphor is firm and scarce at 2s. 8½d. per lb. for 1 oz. tablets of Japan, and at 2s. 9d. for ½oz. tables, and English bells remain nominally at 2s. 10d.@3s. It is reported that for some crude on the spot 275s. has been paid this week, and that there are no further sellers thereat. Gum arabic is very quiet for all kinds of East Indian, the supplies being very small on the spot and good Madras and Kurrachee would sell well. Good Aden has been sold in small lots at 30s. per cwt., and Soudan keeps firm, but a fair trade has been done at 29@30s. per cwt. for fair to good half hard sorts. Pale soft sorts pale to fine are held for 32s. 6d.@45s. per cwt. Gum olibanum is dearer for drop and a fair business has been done at 40s.@42s. 6d. for middling and badly garbled. Common drop realizes 27s 6d.@28s., common to good garblings 15s. 6d.@20s., and siftings 17s.

Ipecac has continued privately in good demand, and there are no sellers under 7s. 6d. for Rio, at which figure a few sales have taken place. However, the market closes quieter, with a few holders asking the extreme price of 7s. 9d.

American H. G. H. peppermint oil has advanced to 14s., spot and paid, and tin oil is also dearer at 10s. 9d.@11s. spot, and dementholized Japan has risen to 4s. 9d spot, paid for Kobayashi. For Suzuki 4s. 7¼d. was done later. Citronella oil is firmer at 1s. 7d. spot, and star anise suboil is steady at 4s. 9d. spot, and cassia oil shows no change on previous values.

Quicksilver remains at £7 5s. per bottle. Turkey canary seed has dropped to 62s. per 464 lb. spot, and cummin seed is dearer at 28s. 6d. @30s. per cwt. for fair to good. Japan wax has been in a fair consuming demand this week at slightly easier rates for spot, good white squares at 58@59s. per cwt., while to arrive the price has dropped to 54s. c. i. f.

Menthol crystals have been done at 8s. 3d.@8s. 6d. spot sellers of Kobayashi and for Suzuki 8s.@8s. 1¼d. spot is now asked.

(Special Cablegram to the Reporter.)

Hamburg Closing Prices.

Hamburg, Oct. 14, 1905.

Camphor, 72c.; lycopodium, 50c.; ergot, 40c.; cantharides, $1.05; codliver oil, $22 per barrel.

TRADE ITEMS.

D. Steengrafe, of this city, left recently for a two months' trip to Europe.

S. Massingham, of the Shipley & Massingham Co., of Pittsburgh, Pa., who came here for the National Wholesale Druggists' Association convention, remained in the city during last week.

J. M. Brayley, of Montreal, Canada, was a visitor to the drug trade last week.

As the result of competition between starch factories in Prescott and Edwardsburg, Ont., a syndicate has been formed to merge all the Canadian factories. Shareholders in the Imperial Company of Prescott have been summoned to a general meeting to confirm the action of the directors to sell the company for $200,000 in six per cent. twenty-year bonds, $75,000 in seven per cent. non-cumulative preference shares and $175,000 in common stock of the merged company. The company has a heavy bonded debt, which, it is said, will leave little for the stockholders.

A charter has been granted to the Continuous Extraction Press Company or Norfolk, Va. The company has been organized to acquire patents of C. J. Fiddyment and John J. McNally, of Norfolk, for machinery that dispenses with all labor in the extraction of oil from vegetable seeds, fish and so forth. Patents have been securred in Japan, England, France and other countries. A number of the machines are now in course of construction for the cottonseed and fish oil industries, to be installed this season. The inventor, Mr. McNally, was formerly president of the McNally Mfg. Co. of Norfolk, and many years identified with the cottonseed oil industries in Arkansas.

Aldehydes and Ketones in Essential Oils.

BY S. S. SADTLER.

Papers on this subject have been read at two different times by the author, as follows: October 15, 1903, published in the Journal of the Franklin Institute, December, 1903, and February 19, 1904. The work was based upon work of Tiemann, Dodge and Heusler, in which neutral sulphites were used to react with the aldehydic constituents of certain essential oils, and the amount of aldehyde present was determined by differences of volume as measured in cassia flasks, etc. Alkali was formed by the reaction, and was indicated by phenolphthalein and, by neutralizing the alkali as formed, the end of the reaction could be ascertained.

The author measured the amount of standard acid required to neutralize the alkali and by calculating the amount, was able to determine the percentage with a fair degree of accuracy. He was in error, however, in judging the extent of the application of the reaction, as in his earlier experiments only citral, cinnamic aldehyde, benzaldehyde, vanillin and formaldehyde were tried, all of which react, although they, as now shown, react differently. These successes were a little misleading.

Burgess, in a paper read December 28, 1903, several months after the reading of the earliest one by the author, but almost coincident with its publication, points out the reactions with citral, cinnamic aldehyde, carvone and pulegone, and states that the same would probably be true of citronellal and olefinic aldehyde.

He does not describe any titration method, however, and refers to measuring in a cassia flask.

His conclusions with regard to the substances that will react are most of them confirmed by the author's coincident or more recent work. He states, however, that carvone reacts with one molecule of sulphite, while the author has abundant experimental evidence to show that it reacts with two molecules and he states that citronellal reacts. The author obtained such feeble results with oil of citronella, that he believes the reaction observed was caused by the small amount of citral contained in this oil, and, furthermore, doubts its activity because of theoretical consideration which will be advanced in this paper. Tiemann only claims that citronella reacts in the presence of sodium bicarbonate.

The substances tried by the author were:—

Name.	No. of double bonds.	Class.	No. mols. sulphite.	Remarks.
Citral	2	fatty	2	Reaction slow
Cinnamic aldehyde ...	2	aromatic	2	Reaction most energetic
Benzaldehyde. ..		"	1	Reaction moderate
Vanillin	..	"	1	.....
Carvone	1	ketone	2	Reaction moderate
Pulegone	1	"	2	"
Formaldehyde ..		fatty	2	Reaction instantaneous
Citronellal ..	1	"	..	No reaction
Citronellal .. (remote from CHO group)	1	"	..	No reaction
Camphor .....none		....	..	"
Camphor .....none		....	..	"
Menthone	"	....	..	"
Fenchone	"	.....	..	"

The method given by the author has been used for subsequent work. Precautions and observations will be given herewith for the substances studied.

In nearly all cases the flask containing the oil and neutral sulphite was allowed to stand over night to be sure that no more alkali formed. Rosolic acid was used as indicator, and the oils were carefully neutralized with tenth-normal potassium hydroxide before adding the sulphite solution. An important indication of the end of the reaction in most cases is the disappearance of the characteristic odor, noticeable in the cases of cinnamic aldehyde, citral, carvone, pulegone and benzaldehyde. Kerosene was used as a diluent for aldehydes and ketones used by themselves and for oils with high percentages of the same.

CITRAL.

On going over the results with oils containing citral, no additional points of particular interest were found. With lemon oil it was found well to take 15 grams when half-normal hydrochloric acid was used, and heating (immersed in boiling

water) was resorted to as soon as the first color that formed with shaking was discharged by the half-normal hydrochloric acid.

The sample of lemon oil was an old one which had previously been found to contain considerably more aldehyde.

Percentage of citral..	3.69	3.80	3.75
Lemon-grass oil almost 1.5 grams used in 10 cc. of kerosene.			
Percentage of citral..	72.8	72.2	71.7

CINNAMIC ALDEHYDE.

With oils of cassia and cinnamon the reaction was very much quicker than with citral, especially in the case of the cassia, and in fact some way of rendering it less rapid should be found. The author considered, after getting the material together for this paper, adding the sulphite, to be used, slowly as the sodium hydroxide formed was neutralized so that the alkali could not polymerize or otherwise act upon the aldehyde or its addition product. Heating is only necessary to complete the reaction.

Percentages of cinnamic aldehyde in a sample of nearly pure cinnamic aldehyde.

Cinnamic aldehyde (1.5 grams)	95.5	94.6	94.6	94.0
Oil of cinnamon (2 grams)	72.8	72.5	73.8	..
Oil of cassia (2 grams)	77.6	78.3	81.5	..

CARVONE AND PULEGONE.

With compounds containing carvone, such as caraway and drill oils, the reaction is about midway in rapidity between the oils containing cinnamic aldehyde and those containing citral. Heating completes the reaction, after neutralizing several times in the cold.

Carvone (97 per cent.)	96.4	97.5
Carvone, another sample	87.7	89.0
Oil of caraway	62.6	53.6

With pulegone the action is very slow and the reaction is probably 2:1, but this point has not yet been verified by the author. It smelled very strongly of menthol, after the pulegone had been removed by the reaction.

BENZALDEHYDE.

In the case of benzaldehyde it is absolutely necessary to carry out the operation entirely in the cold by vigent shaking, and in this case the analyses were carried out by adding the sulphite in small amounts at first. A relatively large amount of rosolic acid or phenolphthalein (as it can be used equally well in the cold) must be used and even then the pink color is very faint, but additions of acid must be kept up until it is completely dissipated. It is especially important to allow the flask to stand over night to see if any additional amount forms.

To further standardize the reaction with benzaldehyde, the clear filtrate was in several cases distilled with steam, and 98 per cent. of the amount taken was recovered. Carbon dioxide was passed through the warm solution to evaporate off the ether.

Steam distillation of the aqueous layers was tried with other substances, but benzaldehyde was the only case where more than a small amount could be recovered. This difference in action may be partly due to the form of combination, but is probably largely due to the different action of steam on the particular aldehydes and ketones themselves.

To standardize the reaction for benzaldehyde, it was thought best to measure the amount of standard alkali (half-normal) used to neutralize the sample and to calculate this to benzaldehyde as the oxidation to acid is so extensive.

Results: 93.5 (not completely decolorized), 96.8, 98.0, 99.0 (fully decolorized).

VANILLIN.

In the case of vanillin there seemed to be a reaction, but the author found difficulty in indicating it. With rosolic acid and phenolphthalein it did not show any formation of alkali, but as pure vanillin dissolved readily in neutral sulphite, it was believed that reaction took place with one molecule of sulphite, as was the case with the benzaldehyde, and the alkali was at once taken up by the vanillin. Previous neutralization of vanillin with alkali, darkened up the solution so that the results were uncertain.

It was found that by taking different amounts of neutral sulphite and vanillin, with more than about one molecule of sulphite to one of vanillin a formation of red color could be observed with a little carefully neutralized cinnamic aldehyde, and with appreciably less than the color did not undergo much change. A microscopical examination of the residues showed the presence of needle-like crystals of vanillin when in excess at one stage, apparently hygroscopic bunches of very fine crystals of the addition product, with no vanillin at another stage, and then the showing of long effloresced crystals of neutral sulphite itself when more sulphite than the 1:1 portion was present.

It is therefore believed by the author that vanillin reacts with one molecule of neutral sulphite.

REAGENTS AND BLANKS.

If the titration is performed hot, it is very hard to decide about the correction to be made for the blank, as the amount of acid necessary to completely discharge the color in the sulphite solution when hot is considerable, but when largely used up in the reaction, would undoubtedly not be so much. The amount of free alkaline reaction in the cold is small and probably even less should be deducted. In this paper, the deductions were about 0.24 c.c. of half-normal acid and when 40 c.c. were used for titrations; this would not give a large error, if a smaller figure were correct.

The samples of sulphite used by the writer did not vary much, and it is an unexplained fact that the most carefully purified samples showed the stronger alkaline reactions.

NEUTRALIZATION OF SULPHITE SAMPLES.

	Cold. c.c.	Hot. c.c.
Mallinckrodt sample (anhydrous)	0.24	2.32
General Chemical Co. (pure cryst.)	0.22	2.37
General Chemical Co. (commercial cryst.)	0.14	1.86
Powers-Weightman-Rosengarten Co. (large, clear crystals)	0.78	2.92

A point to be observed is that correspondingly more of the crystallized salts should be taken as compared with the anhydrous.

THEORETICAL CONSIDERATIONS.

Probably enough substances have now been studied to begin to formulate an opinion as to what influences tend toward combinations of aldehydes and ketones with neutral sulphites.

It may be noticed that double bonds seem to aid in bringing about a reaction when close to the CHO group, as is the case with citral and cinnamic aldehyde.

Proximity of the benzene nucleus to the CHO group as in the case of benzaldehyde and vanillin is probably a factor. It may be noticed that in the case of the most active aldehyde of high molecular weight, cinnamic aldehyde, both the benzene ring and the double bond are near the CHO group.

Citronellal, $C_{10}H_{18}O$, is like citral, $C_{10}H_{18}O$, except that it lacks two double bonds and the one it has is furthest removed from the CHO group, so if it does not react, as seems to be the case, it would not be anomalous.

With ketones, the only ones the author has found active probably contain double bonds and as near as possible to the CO group. Ketones which probably do not contain any double bonds, such as Japan camphor, menthone and fenchone, do not seem to react.

It might be inferred from the fact that formaldehyde reacts so readily, that the smaller the molecular weight, the more readily the reaction takes place.

The author means to look into the reaction with formaldehyde as the analyses he has made point to two molecules of sulphite reacting, which would mean a rearrangement of the CHO group and not merely saturating double bonds in accordance with Tiemann's reaction. The reactions of benzaldehyde and vanillin, however, seem to indicate that the saturation takes place in the CHO group, as it is unlikely that any of the double bonds of the benzene ring would be saturated, and furthermore there is only one molecule of sulphite entering into the reaction.

Similar to benzaldehyde are salicylic, anisic, cuminic aldehydes and heliotropin which promise well for reacting with one molecule of neutral sulphite.

As Tiemann claimed that citronellal reacted with neutral sulphites in the presence of bicarbonate of soda, a line of investigation with its use should be tried with aldehydes and ketones not reacting with neutral sulphite alone. The author, however, does not see his way clear to do this in the near future.

As heat brought about reaction more rapidly than in the cold, slight pressures were tried with several oils, but it was not found to be useful.

In this paper the author has endeavored to make a few additional analyses of compounds containing citral and cinnamic aldehyde so as to corroborate his previous claim as to the proportions of the reacting substances, to investigate the reaction with benzaldehyde and vanillin, to obtain a satisfactory assay method for benzaldehyde, and to get further light on the extent of the reactions.

The author regrets that with a very limited amount of time available for this work he has not been able to analyze more samples and obtain more analytical results on those examined, and that, not being directly connected with essential oil interests, he has not had available the fresh samples he would have preferred, and all the varieties he would have liked to examine.—Journal Am. Chem. Society.

OIL MARKET.

(Continued from page 22.)

of 6@6½c. for 120 degrees melting point. Crude is firm at 5@5½c., according to color and terms of sale. The exports from New York for the week ending October 12 amounted to 2,122,573 lbs., against 3,309,873 lbs. the preceding week.

WHALEBONE.—The New Bedford market remains dull and listless and no sales have been reported. The approximate stock on October 9 was as follows: At New Bedford—Arctic, 52,000; Northwest, nil; South Sea, nil. Elsewhere—Arctic, 7,500; Northwest, nil; grand total, 59,500 lbs. The local market is quiet and prices are quoted nominal. Exports from New York for the week ending October 12 embraced 1,813 lbs. to Havre, the clearance price was $5, and 262 lbs. to Bremen.

TALLOW.—The market opened firm, but prices have been quoted more or less nominal with sales of 200 tierces of edible at 5⅝c. Early in the week 4¼c. for city in hhds. was bid and refused, holders naming 4⅜c. Prices closed steady but nominal at 4¼c. for city in hhds., 4½@4¾c. in tierces and edible at 5⅜@5½c.

GREASES.—Prices opened firm in response to a fair demand and moderate supplies, and closed quiet with yellow held at 3⅞c., brown at 3¼@3¾c. and house at 3¾@3⅞c., resulting in moderate sales.

OLEO STEARINE.—The market opened steady and closed dull and featureless, but prices underwent no change and sellers are asking 7⅜c. for spot parcels. Sales embraced 80,000 lbs., at New York, at 7⅜c. and several cars at Chicago brought 7½c.

The Price of Lard at Chicago.

Oct.	Cash.	November.	January.
7	7.17½@7.20	7.20 @ —	6.87½@6.90
9	— @7.17½	7.17 @7.20	6.85 @6.87½
10	7.17½@ —	7.12½@7.17½	6.80 @6.85
11	7.20 @7.22½	7.17½@7.25	6.80 @6.87½
12	7.22½@7.25	7.22½@7.25	6.87½@ —
13	7.27½@7.30	7.27½@7.32½	6.87½@6.95

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WRITE FOR SAMPLES AND PRICES.

INDUSTRIAL SECURITIES.

Reports from the principal trade centers during the past week have been of the same highly satisfactory character as those of preceding weeks and the expectation appears to be that the prosperous trade conditions will continue, there appearing nothing on the commercial horizon to indicate a prospective revulsion. But it appears that others see a threatened danger. At the Bankers' Convention held in the city of Washington during the past week several speakers pointed out threatened dangers. One of the bankers in attendance, Mr. Frank A. Vanderlip, former Assistant Secretary of the Treasury, pointed out several threatened dangers, and said:—

"We know we are threatened by great social disorders; that the edict of a labor leader might change a cloudless outlook into an uncertain one. We know there is a disregard of law in labor unions and in corporation offices alike which is threatening to our welfare. We can at the moment clearly see that however prosperous conditions may appear this prosperity might receive a severe check should a speculative fever begin to rage.

"Should a stock market speculation start from the present high level of prices in the face of the extraordinary demand for capital and money which crops and business alike are making the result might easily be temporary disaster."

Mr. Vanderlip cited the fact that the value of the agricultural crop of the United States will be three billion dollars, which is five hundred million dollars greater than the annual average of the last ten years, and declared that the farmers, whose only acquaintance with finance had once been mortgage payments to absent creditors, had developed into bank depositors and actual investors in corporate securities. The Mississippi Valley, he predicted, would be another New England for investment. We quote further:—

"When this country faced war we produced great military generals. To-day, when a crisis in management of vast industrial combinations is upon us, we are producing great captains of industry. These managers are not all great administrators any more than the war officers were all great administrators, but I believe the world has never seen a parallel of the business genius which is coming into the work of organizing some of these great industrial combinations. Economies are being brought about that were not conceived of when these organizations were formed—the co-ordination of a whole field of industry, the organization and distribution of plants so that the industry is working under the least possible disadvantage. The results are beginning to appear in the income acounts and balance sheets.

"With the aid of a wealth of raw material and a genius for mechanical production we developed a few years ago a capacity for industrial competition which startled the world. England, whose supremacy had been of such long standing that she rested in serene assurance, was crowded to second place in international markets by America, and then to third place by Germany. Then came a halt. Europe awoke to the situation. She bought samples of our tools and duplicated them. She sent an army of investigators to study our methods. She arrested us in our commercial conquest.

"That halt is proving to have been only temporary. Again we are showing unexampled totals in our exports of manufactures. The reason for this making of new records lies in the perfection of industrial organization which has been made possible by great combinations. I believe we are just started on a new 'commercial invasion.' The combination of these forces will, I conceive, be well nigh irresistible. The logic of this combination spells for us an unexampled development of foreign trade. All we need is intelligently to foster the possibilities.

"This conquest of foreign markets will not be an easy one, however. We are likely to meet with defeat and failure, because of failure to give proper attention to business or because of obstacles which we cannot overcome. Perhaps we shall see an obstacle of the situation in the Far East. It is by no means certain that Japan is to stand courteously at the open door of Oriental trade and permit us to enter. We have seen in China what a racial boycott can do in interfering with trade totals. Oriental trade is not something won, but something to be striven for. Nor is the trade of Europe to be ours for the asking. Tariff walls grow higher with every meeting of continental parliaments. Ability to compete with us increases as our methods are better comprehended. Germany has gone so far ahead of us in the proper reduction of industrial classes that we may lose at times from that cause alone."

But the principal transportation companies, which are regarded as good barometers of trade, are making earnest preparations to care for a growing volume of freight, the orders they have recently placed for additional equipment in the way of cars, locomotives is evidence they have good reason to expect a larger demand on their facilities. In the lines of trade represented by the Reporter the demand for chemicals has continued fairly active, both for prompt and future shipment, while deliveries on contracts have been on a liberal scale. Some improvement is reported in the movement of drugs, the business passing being fully up to the average for this season. Dyestuffs have been in fair request, but show no further improvement. Paints continue in good demand, the consumption being larger than at this time last year. Oils are moving satisfactorily with seed and mineral oils fairly active. The industrial situation continues highly satisfactory, the reports from the principal industrial centers being to the effect that the demand for all classes of products is almost unprecedented. In the metal trades the conditions continue to be most prosperous, and many concerns are enlarging their equipment to meet the demands made upon them. The demand for railway supplies has been most active, exceding all previous records. Manufacturers of machinery report continued active demand for their products and that they are behind in their deliveries. The textile industries are in fairly prosperous condition, but labor troubles are looming up and the outlook is not so assuring. The labor situation shows little change. There have been a number of new strikes, but none that are regarded as likely to extend. The strike of the printers for an eight-hour day continues and the end is not yet in sight. The great agricultural staples with the single exception of cotton, have gained an advance during the past week. Wheat opened on Monday at 89½c. and early showed strength and advanced during the first two days. The range for the week for December delivery was 89⅛@91½c., with the close on Friday at 90⅝c. Corn started the week at 53¼c. and followed closely in the wake of wheat. The range for the week for December delivery was 53¼@54½c., with the close on Friday at 54½c Oats sold at 33½c. until Tuesday since which they have remained steady and firm at 34c. Cotton showed increased strength early in the week, but later weakened. The range for the week for December delivery was 9.69@10.01c., with the close on Friday at 9.73c. Lard has varied considerably, but showed gain the past few days. The range for the week at Chicago for November delivery was 7.12½@7.25c., with the close on Friday at 7.25c. The market for time money has been firmer, while the supply has been good and demand variable. Rates at the close were 5@5½ per cent. for thirty to sixty days, 4½@5 per cent. for ninety days to four months, and 4½ per cent. for longer periods. Money on call on the Stock Exchange has ranged from 3½@6½ per cent., with the bulk of the business done at 4½@5½ per cent. The average rate was 5 per cent. The closing rate on Friday was 5 per cent. Mercantile paper has been in light supply during the past week, with the demand light and rates firmer. Rates at the close were 5 per cent. for sixty to ninety days' indorsements, 5@5½ per cent. for choice single names having four to six months to run and 5½@6 per cent. for other grades. The price of bar silver advanced almost gradually and closed on Friday at 61⅞@63¼. for commercial bars and 62¼@63c. for government assay bars, showing an advance of ¼c. over the closing prices of last week. Mexican dollars closed at 47¼c. bid and 49c. asked. No further engagements of gold were reported during the week. The market for sterling exchange advanced daily and closed quiet and strong on Friday. Rates for actual business at the close were 4.82¼@4.82⅝ for sixty days, 4.85¾@4.85⅞ for demand and 4.86¼@4.86¾ for cables. The supply of grain and cotton bills was moderate, while the demand was good. Rates at the close were 4.81½@4.82½. The Industrials have been traded in to a moderate extent only and at times rather lightly, being apparently affected by the general conditions prevailing on the Exchange. A majority of this class of securities developed weakness, but without bad breaks and the only one to score a gain was Corn Products stock. The week was devoid of developments or interesting news. The general list of securities dealt in on the Stock Exchange broke sharply early in the week, with only partial recovery and later was decidedly irregular with advances and declines following each other in quick succession. Trading was light as a whole with occasional spurts of activity.

Sugar stock early in the week showed some strength, but later declined in sympathy with the course of the general list. The variations took a rather wide range, and while the stock was easily depressed, it responded promptly when support was given. The last sale on Friday was at 140¼.

The fluctuations during the week have been from 138¼@141⅝, the lowest Thursday and the highest Wednesday, closing to-day at 140 bid.

Cotton Oil stock, like nearly all the other Industrials, was swayed by the course of the general market, there being no developments or news to affect the stock. Trading was light. The last sale on Friday was at 31¼.

The fluctuations during the week have been from 30@32, the lowest Thursday and the highest Monday, closing to-day at 31¼ bid.

Lead stock was traded in to a fair extent, and while there appeared to be support given it at times, it weakened. There was gossip as to the resignation of a prominent official of the concern, but no particulars were given out. The last sale on Friday was at 46¾.

The fluctuations during the week have been from 45¼@47¼, the lowest Thursday and the highest Monday, closing to-day at 47 bid.

Linseed stock appeared to attract very little attention and only a few sales were reported on the Exchange. The stock held quite steady, however, and reports current as to the condition of the concern were favorable. The last sale on Friday was at 18.

The fluctuations during the week have been from 18@18¾, the lowest Friday and the highest Monday, closing to-day at 17½ bid.

Va.-Car. Chemical stock showed steadiness despite the general weakness in all classes of stocks and was unaffected by the breaks in the general list. Trading was very light and there was an entire absence of news. The last sale reported, on Thursday, was at 31½.

The fluctuations during the week have been from 31½@32½, the lowest Thursday and the highest Wednesday, closing to-day at 32 bid.

Corn Products stock received considerable attention and gained in strength despite the depression in other stocks, being unaffected by the course of the general market, although there was no news. The range for the week was 12½@13¼, with the last sale on Friday at 13¼.

(Special Correspondence to the Reporter.)

Philadelphia Chemical Market

Philadelphia, Oct. 13, 1905.

ALKALI.—A very much better demand is noted for deliveries on outstanding contracts, noticeable particularly from the glass trade. Prices for delivery over next year still remain on a basis of .75@.77½c. for light 58 per cent. in bulk, f. o. b. works, with the usual difference for dense 58 per cent. and 48 per cent. Foreign ic in limited supply, with no change in prices to note.

BLEACHING POWDER.—More inquiry is noted in a jobbing way, and the article is scarce for prompt delivery; 1.45@1.55 is named for small parcels, and contracts are quoted at 1.25 and upward, as to quantity and terms of sale.

CAUSTIC SODA.—No change has been noted during the past week. Deliveries on contracts continue well up, and the usual jobbing demand is noted. On contracts for next year 1.75@1.80c. is named for high test, f. o. b. works, and 10c. per hundred higher for 60 per cent. Prompt deliveries from works can be had at 2½c. to 5c. per hundred advance.

SAL SODA.—Manufacturers report a better demand, and are booking orders at .65@67½c. as to quantity. Foreign is quoted at .95@.97½c. on spot, and for shipments at .85@.87½c.

NITRATE OF SODA.—A sharp advance has taken place during the past week. For spot goods, 2.30@2.35c. is named, and to arrive early part of next year 96 per cent. is quoted at 2.27½@2.30c., with 2½c. less named for 96 per cent. Later arrivals can be had at a shade under, and monthly arrivals over all of 1906 are quoted at 2.17½@2.20c. for the 96 per cent., and 2.15@2.17½c. for the 95 per cent.

In the following table are given the closing quotations Friday night. The market review is complete to Saturday's close.

Name.	Stock Outstanding.	Bonds Outstanding.	Dividends Payable.	Last Dividend.	Bid.	Asked.	Shares Sold This week.	High and Low, 1904.		High and Low, 1905	
Am. Agric'l Chemical Co.	$17,215,000	.....	Q.—J.	....	22¼	24½	100	24⅞	13	29¼	20
pref. 6%*	18,163,000	.....	A. & O.	Apr. 1, '05, 3%	87	..	.....	87	72	95	93
Am. Can Co.	41,233,300	.....	.....	Apr. 1, '04, 2½%	10¾	11	.....	4½	3½	..	..
pref. 7%*	41,233,300	.....	Q.—J.	Oct. 2, '05, 1¾%	71½	72	.....	38	31⅝	..	..
American Chicle Co.	6,000,000	.....	Q.—J.	Oct., '05, 1%	140	145	.. ..	..	..	..	..
pref. 6%*	3,000,000	.....	Monthly.	1%	100	103	.....	.....		.....	
Am. Cotton Oil Co.	20,237,100		D.	Dec. 31, '04, 1¼%	30½	31	1,800	37⅞	24½	38	27¾
pref. 6%	10,198,000	3,000,000	J.&D.	June 1, '05, 3%	92	100	.....	97	88¾	97	89¼
Am. Degras Co.	500,000	.....	.....	.....	..	..	.....	..	..	..	..
Am. Glue Co.	800,000	.....	M.&N.	May 11, '05, 2%	..	58¼	.....	..	..	..	..
pref. 8%*	1,304,300	.....	F.&A.	Aug. 1, '04, 4%	..	118	.....	..	..	..	..
Am. Linseed Co.	16,750,000	.....	.....	.....	18	18¾	900	20⅝	6¾	22¾	15¼
pref. 7%	16,750,000	.....	Q.—M.	Sept. 15, '00, 1¾%	41	42	10	42½	22½	48½	36
Am. Smelt. & Ref. Co.	50,000,000		.....	Oct. 16, '05, 1¾%	128½	128¾	114,200	82½	46	131⅞	79¾
pref. 7%	50,000,000	973,000	Q.—J.	Oct. 2, '05, 1¾%	120¾	121	2,300	115	88¾	128	111¼
Am. Snuff Co.	11,001,700	.....	Q.—J.	Oct. 2, '05, 2½%	167½	190	100	170	110	200	163
pref.	12,000,000	.....	Q.—J.	Oct. 2, '05, 1¾%	102	106	.....	101½	85	107	98¾
Am. Soda Fountain Co.	1,250,000	.....	.....	.....	2	4	.....	..	..	..	..
pref. 6%*	1,250,000	.....	Q.—J.	Nov. 16, '03, 6%	57	62	.....	..	..	..	..
2d pref. 8%*	1,250,000	.....	.....	.....	7	12	.....	..	..	..	..
Am. Sugar Refining Co.	45,000,000	.....	Q.—J.	Oct. 2, '05, 1¾%	140	140¼	21,160	153	122¼	149¾	130¼
pref. 7%*	45,000,000	.....	Q.	Oct. 2, '05, 1¾%	139	142	125	141	122	141	133
Am. Tobacco, new pref.	78,689,000	123,960,000	Q.—J.	Oct. 2, '05, 1¼%	101½	102	7,415	96	85¾	104	91¼
Am. Window Glass	13,000,000	.....	.....	Jan. 20, '04, 1½%	25	..	.....	40	..	..	..
pref. 7%*	4,000,000	.....	M.&S.	Sept. 20, '03, 3½%	..	..	.....	90½	50	40	40
Casein Co. of Am., 8%*	5,492,000	.....	Q.—F.	.....	3	6	.....	..	..	..	..
pref. 8%*	1,000,000	.....	Q.—F.	Aug. 10, '05, 2%	75	..	.....	..	..	..	..
Celluloid Co., 6%.	5,925,000	.....	Q.—J.	Oct. 2, '05, 1½%	130	133	.....	..	..	..	..
Chesebrough Mfg. Co.	500,000	.....	Monthly.	.....	440	480	.....	..	..	..	..
Compressed Gas Capsule Co.	13,500,000	.....	.....	.....	..	..	.....	..	..	..	..
pref. 8%	1,500,000	.....	.....	.....	..	..	.....	..	..	..	..
Continental Tobacco Co.	48,846,100		.....	.....	..	..	.....	..	..	..	..
pref. 7%	48,844,600	1,450,000	Q.—J.	Oct. 3, '04, 1¾%	133	135	.....	131	101½	133¼	128
Con. Stock & Pet. Ex. Mem.	†($1,500)	.....	.....	.....	..	..	.....	..	..	..	..
Corn Products Co.	45,215,500	.....	Q.—M.	Feb. 10, '04, 1%	13	13¼	6,160	26¼	9¾	22¾	8¾
pref. 7%*	27,380,700	.....	Q.—J.	Apr. 10, '05, 1%	53	53½	3,955	82¼	65	79	40
Diamond Match Co.	15,000,000	.....	Q.—F.	Sept. 15, '05, 2½%	140	..	.....	141¾	127	140	137
Distillers' Securities Corp.	32,478,840	13,116,000	Q.—J.	July 28, '05, 1%	42¾	43	6,714	40½	19½	47½	34⅞
Dixon Crucible Co.	734,500	.....	Q.—J.	July 1, '05, 3%	375	..	.....	..	..	..	..
Fisheries Co.	532,867	500,000	J.&J.	.....	..	..	.....	..	..	..	..
pref. 7%	2,000,000	.....	Annual.	Jan. 10, '05, 7%	..	..	.....	..	..	..	..
General Chemical Co.	7,410,300	.....	Q.—M.	Dec. 1, '03, 1¼%	70	73	.....	60	43	72	50
pref. 6%	10,000,000	.....	Q.—J.	Oct. 2, '05, 1½%	104	107½	.....	101⅝	94	106	101
Glucose Sugar Refining Co.	24,027,300	.....	Q.—M.	Dec. 2, '01, 1%	..	..	.....	..	..	..	..
pref. 7%*	13,638,300	.....	Q.—M.	Dec. 2, '01, 1¾%	..	..	.....	..	..	..	..
Harrison Bros. Co.	1,000,000		.....	.....	..	..	.....	..	..	..	..
pref.	1,500,000	1,300,000	Q.—F.	Aug. 15, '01, 1¾%	..	..	.....	..	..	..	..
Maritime Ex. Mem.	†($55)	.....	.....	.....	..	..	.....	..	..	..	..
National Lead Co.	14,905,400	.....	.....	Mar. 1, '00, 1%	46½	47	12,700	26¼	14½	51⅝	24½
pref. 7%*	14,904,000	50,000	Q.—M.	Sept. 15, '05, 1¾%	105½	106	600	98¼	80½	111¼	97⅝
National Licorice Co.	1,000,000	.....	Q.—J.	July 10, '05, 1%	..	..	.....	..	..	..	..
pref. 6%*	500,000	.....	Q.—J.	June 30, '05, 1½%	..	..	.....	..	..	..	..
National Wall Paper Co.	30,000,000	.....	.....	.....	..	..	.....	..	..	..	..
pref. 8%	3,000,000	.....	.....	.....	..	..	.....	..	..	..	..
New Jersey Zinc Co.	10,000,000	10,000,000	.....	.....	..	..	.....	..	..	..	..
Penn Salt Mfg. Co.	3,000,000	.....	A.&O.	Apr. 15, '04, 6%	..	..	.....	..	..	..	..
Pittsburgh Plate Glass Co.	12,342,600	.....	Q.—J.	July 1, '05, 1½%	118	..	.....	141	105	115	105½
pref.	150,000	.....	.....	Apr. 1, '05, 12%	..	..	.....	..	..	..	..
Planters' Compress Co.	20,000,000	.....	.....	.....	..	..	.....	20	9	..	..
Procter & Gamble Co.	6,000,000	.....	Q.—F.	May 15, '05, 3%	332	332½	.....	..	..	..	..
pref. 8%*	2,250,000	.....	Q.—J.	Oct. 14, '05, 2%	198	200	.....	..	..	..	..
Produce Exchange Membership.	†($200)										
Pure Oil Co.	8,000,000	.....	.....	.....	..	..	.....	..	..	..	..
pref. 6%*	2,000,000	.....	.....	.....	..	..	.....	..	..	..	..
Quicksilver Mining Co.	5,708,700	.....	.....	.....	½	1	.....	3½	¾	1⅝	¾
pref. 7%	4,291,300	.....	.....	July 1, '04, 1½%	2	5	.....	7	3½	4¼	2¼
Royal Baking Powder Co.	10,000,000	.....	.....	.....	115	118	.....	..	117¼	..	..
pref. 6%*	10,000,000	.....	Q.—J.	July 1, '05, 1½%	110	112½	.....	..	117½	..	..
Southern Cotton Oil Co.	1,000,000	.....	J.&D.	June 15, '03, 4%	..	..	.....	..	..	..	..
Standard Oil Co.	97,500,000	.....	Q.—M.	Sept. 15, '05, 6%	668	672	.....	612	615	..	..
Standard Table Oil Cloth.	4,000,000	.....	.....	.....	..	..	.....	..	..	..	..
pref. 7%*	4,000,000	.....	.....	.....	..	..	.....	..	..	..	..
Stillwell, Bierce & Smith Vaile Co.	1,012,100	300,000	.....	.....	..	..	.....	..	..	..	..
U. S. Glass	3,200,000	.....	.....	.....	..	..	.....	..	..	..	..
U. S. Leather Co.	62,282,300		.....	.....	12⅞	13⅝	400	20¾	6½	14⅜	10⅞
pref. 8%*	62,282,300	5,280,000	Q.—J.	Oct. 2, '05, 1½%	112¾	113	800	106½	75⅝	114	101
U. S. Playing Card Co.	3,000,000	.....	Q.—J	.....	..	..	.....	..	..	..	..
U. S. Printing Co.	3,500,000	.....	A.&M.	.....	..	..	.....	..	..	..	..
U. S. Reduction & Refining Co.	5,918,800		Q.—J.	July 1, '05, 1%	..	..	200	..	..	40¼	18
pref. 6%	3,945,800	3,000,000	Q.—J.	Oct. 1, '05, 3½%	..	..	800	40¼	36½	73¼	35
U. S. Rubber Co.	23,666,000	.....	.....	Apr. 30, '00, 1%	52	52¼	16,600	34½	10½	58½	33¾
pref. 8%	23,525,500	12,000,000	Q.—J.	Aug. 15, '05, 2%	111¼	111½	1,600	100	41	118½	96⅜
Union Talc Co.	1,000,000	.....	.....	.....	.....		.....				
Virginia-Carolina Chemical Co.	27,984,400		.....	.....	31½	32	1,265	44¼	22¾	39	28¾
pref. 8%*	12,000,000	7,000,000	Q.—J.	Oct. 15, '05, 2%	106¼	106¾	1,110	116	97⅝	110¾	103⅞

*Cumulative. †Price of last seat sold.

PETROLEUM MARKET.

(Continued from page 28.)

EXPORT STATISTICS.

The following table shows the total exports from the port of New York and from the United States, reduced to crude equivalent, in gallons for the week ending Oct. 13; also total shipments to date, with comparisons with 1904:—

From N. Y., week ending Oct. 13....	15,915,692
Total from N. Y. from Jan. 1, 1905.	530,561,871
Same period last year.	451,850,135
Increase	78,711,736
From U. S., week ending Oct. 13....	28,301,137
Total from U. S. since Jan. 1, 1905.	999,210,339
Same period last year.	859,557,351
Increase	139,652,988

TOTAL EXPORTS BY PORTS.

	1905.	1904.
New York	530,561,871	451,850,135
Philadelphia	408,204,994	353,824,400
Baltimore	25,997,305	40,858,893
Boston	424,007	507,769
San Francisco	34,112,162	12,516,154
Grand totals	999,210,339	859,557,357

Foreign Quotations.

REFINED.

	Antwerp. Francs.	Bremen. Marks.	London. Pence.	L'pool. Pence.
Monday	19 @—	6.35	6¼@6¼	—@6¼
Tuesday	19 @—	6.35	6⅜@6½	6¼@6½
Wednesday	19 @—	6.35	6⅜@6⅜	6½@6⅜
Thursday	19 @—	6.35	6⅜@7	—@6⅜
Friday	19 @—	6.35	6⅜@7	—@6⅜
Saturday	19 @—	6.35	6⅜@7	—@6⅜

PETROLEUM CHARTERS.

Following is a list of vessels chartered and loading or to load petroleum at New York, Philadelphia, Baltimore and Boston. Quantities are refined in barrels, unless stated otherwise:—

New York.

Week ended March 10.

Fr shp Vauban, Tsingtan, 17½c.....cs. 75,000

Week ended March 24.

Br str Mosticks, Bombay, 20c.....cs 140,000
Am shp E B Sutton, Penang, 13½c...cs 60,000

Week ended April 7.

Br str Crewe Hall, Hong Kong, 17½c.cs 160,000

Week ended June 2.

Ger bk Alsternixe, Japan, 16½c.....cs. 85,000

Week ended June 23.

Br shp Glenogil, Melbourne, 12c.....cs. 90,000

Week ended July 28.

Br shp Manx King, Melbourne, 12c...cs. 70,000
Br str ——, Red Sea ports, 20½c....cs.120,000

Week ended Aug. 4.

Am shp Tillie E. Starbuck, New Zealand, 16c.....cs. 75,000

Week ended Aug. 11.

Br bk Onnasona, Melbourne, 12c.....cs. 55,000
Ger shp Peter Rickmers, Singapore, 15c. cs.120,000

Week ended Aug. 25.

Fr bk Jules Simon, Mauritius, 24c....cs. 20,000

Week ended Sept. 1.

It shp Antonio Padre, Fremantle, 15½c.cs. 80,000

Week ended Sept. 8.

Br str Sutherland, Japan, 21c.....cs.140,000
Ger bk Nal, Japan, 17½c.....cs.100,000

Week ended Sept. 22.

Str ——, Egypt, 18c.....cs. 80,000
Br str Obi, Alexandria, 17¼c.....cs.110,000

Week ended Sept. 29.

Br str Maritime, Egypt, 17½c.....cs.100,000
Ger shp Neck, Japan, 18½c.....cs. 80,000
Am bk Ethel V Boynton, Pernambuco, 18c.....cs. 80,000
Br str Avala, Hong Kong, 21½c.....cs.130,000
Br str Sheikh, Shanghai, 22½c.....cs.130,000
Nor str Aquila, River Plate, p t.....cs.130,000
Br str Trafalgar, Levant, p t.....cs.150,000

Week ended Oct. 6.

Br str Ben Vrackie, Japan, 22½c.....cs.150,000
Br str Simoon, Shanghai, 22½c.....cs.150,000

Week ended Oct. 13.

It str Vincenzo Bonnano, Alexandria, 17½c.....cs. 90,000
It shp Guiseppina, Java, 16c.....cs. 80,000
Br bk St Mary's Bay, Haiphong, 21c..cs. 40,000
Br str Yarborough, River Plate, pt...cs. 40,000

Philadelphia.

Week ended June 30.

Br str Ranza, Japan, 19c.....cs. 200,000
Ger shp Willy Rickmers, Japan, 16½c.. cs. 80,000
Br str City of Gloucester, Alexandria, 15c.....cs. 100,000

Week ended July 7.

Cub str Regina, Havana, p. t..... 20,000

Week ended Sept. 1.

Br str Hyndford, Japan, 21½c.....cs.160,000

Week ended Sept. 29.

Nor str Tancred, Japan, 22½c.....cs.135,000

PETROLEUM CLEARANCES.

New York.

Following are the clearances of petroleum from the ports of New York, Philadelphia, Baltimore, Boston and San Francisco, on the dates named. Refined, unless otherwise specified:—

Oct. 3.

Br str Rosalind, St John, 455 bbls
Br str Tennyson, Rio Janeiro, 15,000 cs
Br str Tennyson, Bahia, 10,100 cs
Br str Tennyson, Santos, 600 cs
Am str Finance, Colon, 410 cs
Br str Fontabelle, Demerara, 4,050 cs, 50 bbls
Br str Fontabelle, Barbadoes, 200 cs
Br str Fontabelle, Guadeloope, 50 cs, 25 bbls
Br str Fontabelle, St Vincent, 400 cs

Oct. 4.

Nor str Verona, Hayti, 305 cs
Br str Hindustan, Montevideo, 6,600 cs
Br str Hindustan, Rosario, 15,000 cs
Br str Hindustan, Buenos Ayres, 300 cs naphtha
Br str Indra, Batavia, Java, 200,000 cs
Br brgt Marconi, Colon, 3,000 cs

Oct. 5.

Br str Star of Ireland, New Zealand, 19,995 cs
Br str Cametense, Clara, 4,880 cs
Br str Cametense, Maranham, 5,850 cs
Br str Cametense, Parahyba, 650 cs
Belg str Canova, Buenos Ayres, 23,000 cs
Belg str Canova, Montevideo, 3,000 cs
Br str Seneca, Tampico, 1,000 cs
Ger str Alene, Kingston, 665 cs
Ger str Alene, Jamaica, 1,026 cs
Ger str Alene, Colon, 3,750 cs, 10 bbls

Oct. 6.

Br str Suram, Venice, 1,575,709 gls blk
Br str Mira, Manchester, 1,750,000 gls blk
Br str Grenada, Grenada, 750 cs
Br str Grenada, Trinidad, 1,000 cs, 5 bbls
Br str Grenada, Cd Bolivar, 105 cs
Str Santiago, Cuba, 14 bbls, 14 cs
Ger str Allegheny, Jamaica, 110 cs
Ger str Allegheny, Kingston, 1,036 cs, 5 bbls
Ger str Allegheny, Cartagena, 1,025 cs
Ger str Allegheny, Savanilla, 190 cs
Ger str Allegheny, Port Limon, 100 cs
Ger str Allegheny, Baranquilla, 100 cs

Oct. 7.

Am str Advance, Colon, 200 cs
Br str Calderon, Manchester, 100 bbls crude
Str Ponce, Porto Rico, 4,200 cs
Str Maracaibo, Curacao, 230 cs
Str Maracaibo, Maracaibo, 1,060 cs

Oct. 10.

Br bk Golden Rod, Bahia, 16,900 cs
Br str Cymbeline, London, 2,085,000 gls resid blk

Oct. 11.

Br str Narragansett, London, 3,485,000 gls blk

Oct. 12.

Ger str Excelsior, Copenhagen, 1,670,000 gls blk

Boston.

Oct. 5.

Br sch Josephine, Bear River, N S, 250 gals

Oct. 6.

Br sch J W Meteghan, P E I, 30 gals

Philadelphia.

Sept. 27.

Br str Turbo, Dover, t. o., 49,208 gls

Sept. 29.

Br str Lucigen, So Shields and Sunderland. 67,745 gls
Br shp Radiant, Newcastle, 28,800 gls naphtha

Sept. 30.

Spn bk La Vigursa, Vigo, 268,519 gls crude

Oct. 2.

Nor bk Ville de Dieppe, Dieppe, 649,813 gls crude
Ger str Willkommen, Stockholm, 1,355,880 gls

Oct. 4.

Ger str Bayonne, Messina, 1,386,839 gls

Oct. 6.

Br str James Brand, Furt Blaye, 1,600,000 gls
Br str Weehawken, London, 1,250,000 gls
Dtch str La Hesbaye, Antwerp, 1,100,000 gls
Br str Potomac, Avonmouth, 1,600,000 gls

San Francisco.

Sept. 30.

Bk Gerard C Tobey, Honolulu, 3,000 gls naphtha

Oct. 2.

Str Rosecrans, Honolulu, 230,000 bbls crude
Sch Monterey, Honolulu, 19,400 bbls crude
Str Acapulco, Salvador, 800 gls
Str Acapulco, Honduras, 200 gls

Oct. 3.

Sch H C Wright, Makona, 1,500 gls ref, 100 gls naphtha

EXPORTS OF PETROLEUM.

Following the the exports of petroleum products from the port of New York (in gallons) during the past week, and since Jan 1, as also the exports during the corresponding period of last year:—

Refined.

	For week.	Since Jan. 1.	Same time last year.
Adelaide	.....	3,112,680	2,114,260
Aden	.....	457,000	20,000
Africa, South	.....	973,950	.....
West Coast	.....	120,000	.....
Alexandria	.....	1,798,750	193,810
Algiers	.....	178,950	284,256
Algoa Bay	.....	923,160	1,607,560
Amoy	.....	453,000	1,026,150
Amsterdam	.....	4,198,500	10,165,000
Angier, f. o.	.....	1,070,130	7,558,100
Antigua	.....	27,976	39,888
Antofagasta	.....	635,490	41,600
Antomina	.....	.....	75,000
Antonio	.....	75,000	.....
Antwerp	.....	11,625,000	12,494,821
Areca	.....	42,000	.....
Asini, W. C. A.	.....	.....	165,000
Asuncion	.....	.....	20,000
Auckland	.....	199,950	199,950	666,270
Australia	.....	.....	61,869	.....
Avonmouth	.....	7,005,000	4,350,000
Axim, W. C. A.	.....	.....	350,200
Azua	.....	2,000	.....
Azores	.....	312,879	189,642
Bahama	.....	910	.....
Bahia	.....	270,000	2,168,200	1,708,570
Bahia Blanca	.....	.....	24,444
Bangkok	.....	55,000	.....
Banjoewangi, Jv.	.....	910,000	.....
Barbadoes	.....	2,000	192,750	324,400
Barranquilla	.....	1,000	33,000	5,400
Barrow	.....	.....	350,000	.....
Batavia	.....	2,000,000	5,111,540	646,766
Beira	.....	.....	17,500	2,250
Belfast	.....	.....	1,690,000	.....
Belize	.....	.....	102,690	50,517
Bermuda	.....	.....	197,727	318,771
Beyreuth	.....	.....	639,880	.....
Black River	.....	.....	500	.....
Bluefields	.....	.....	5,000	60,583
Bocas del Toro	.....	.....	.....	37,000
Bombay	.....	.....	7,727,960	1,200,000
Bonny	.....	.....	.....	46,000
Bremen	.....	.....	37,500	.....
Bremerhaven	.....	.....	.....	1,345,000
Brisbane	.....	.....	731,500	1,146,930
Buenos Ayres	.....	230,000	8,027,540	8,146,830
Cabadello	.....	.....	286,000	116,000
Cadiz	.....	.....	50,000	.....
Calcutta	.....	.....	8,993,430	1,012,500
Caldera	.....	.....	1,750	1,500
Caleta Bueno	.....	.....	35,000	.....
Callao	.....	.....	188,500	335,500
Campeche	.....	.....	7,500	13,800
Canary Islands	.....	.....	298,100	.....
Cape C't Castle	.....	.....	154,500	.....
Cape Town	.....	.....	2,828,000	2,550,950
Cape V'rde Isl'ds	.....	.....	3,000	.....
Cartagena	.....	10,250	185,994	248,372
Carupano	.....	.....	49,920	38,380
Casa Blanca	.....	.....	.....	40,330
Ceara	.....	48,800	450,100	230,475
Cebu	.....	.....	.....	870,000
Celba	.....	.....	7,200	4,220
Chaparra	.....	.....	1,000	.....
Chefoo	.....	.....	3,015,120	4,343,880
Chemulpo	.....	.....	1,428,870	.....
Charlotetown, P. E. I.	.....	.....	25,000	114,788
Ciudad Bolivar	.....	1,050	62,489	80,390
Colombo	.....	.....	350,000	2,215,040
Colon	.....	74,100	978,990	940,840
Conarky, W.C.A.	.....	.....	118,000	.....
Copenhagen	.....	1,670,000	1,670,000	.....
Coquimbo	.....	.....	118,000	.....
Corinton	.....	.....	9,600	.....
Corn Island	.....	.....	.....	2,518
Coronel	.....	.....	59,750	.....
Corral	.....	.....	50,000	62,000
Corsica	.....	.....	73,000	.....
Cuba	.....	840	701,700	619,560
Cumana	.....	.....	3,250	1,000
Curacao	.....	2,300	154,804	127,254

(Continued on page 42.)

STANDARD OIL CO. OF NEW YORK

MAIDEN LANE BRANCH

Refiners and Packers of Petroleum and its Products.

Office, 124 Maiden Lane, New York. Works, First and Bond Sts., South Brooklyn.

MICA AXLE GREASE

Manufactured By the

STANDARD OIL CO.

EXPORTS OF PETROLEUM.

(Continued from page 41.)

Delagoa Bay		1,416,320	1,393,310
Demerara	43,000	434,867	417,781
Desterro		378,000	460,000
Djeddah		942,000	
Dominica		25,040	32,649
Dover, f. o.		12,110,019	5,514,105
Durban		663,350	1,037,870
Dublin		3,400,000	
Dutch Guiana		263,065	247,750
East London		1,302,480	1,616,190
Eten		13,000	18,000
Falmouth		4,250	
Fiume		9,000	
Flushing, f. o.		76,054,400	60,140,000
Foochow		880,000	500,000
Forcados		121,480	162,940
Formosa		452,690	
Fremantle		3,223,890	4,962,110
French Guiana		111,671	95,969
Frontera			3,100
Gibara		2,000	
Gibraltar		20,000	286,950
Grenada	7,500	88,990	109,600
Greytown			27,494
Guadeloupe	1,750	116,077	132,938
Guanta		12,000	12,620
Guayaquil		321,100	238,400
Haiphong		120,680	
Halifax		281,873	683,669
Hamburg		6,583,637	2,883,250
Hankow, China		1,184,090	
Havre		10,940	
Hayti	3,050	362,598	660,427
Hiogo		1,522,000	789,580
Hong Kong		12,297,250	15,290,850
Hull		28,300	8,000
Inagua		260	
Iquique		1,225,160	10,500
Iquitos		72,220	42,600
Jamaica	28,620	780,433	732,021
Jeremie		500	
Kobe		750	300,000
Kurrachee		1,700,000	1,671,010
Lagon		147,300	
La Guayra		412,521	517,798
Las Palmas		30,000	417,130
Lisbon		1,967,310	1,539,168
Liverpool		329,445	600
Livingston		7,713	
London	3,485,000	42,533,310	21,085,000
Lyttleton			9,600
Macassar		445,000	801,900
Maceio		619,200	494,500
Macoris		1,250	
Madagascar		200,000	
Madeira		76,000	130,500
Madras		40,000	
Malta		63,000	500
Manaos		409,380	638,547
Manchester	1,750,000	3,313,700	4,300
Manila		3,172,810	3,441,000
Manta		1,000	
Maracaibo	10,600	149,635	151,798
Maranham	58,500	440,000	339,164
Marseilles		55,000	
Martinique		245,456	130,729
Mauritius		139,940	120,000
Massawah		200,000	
Melbourne		2,833,160	2,915,660
Messina		1,400,000	
Mollendo		228,750	15,500
Montevideo	90,000	2,966,120	2,490,440
Mossel Bay		150,000	57,920
Nassau		393,440	104,587
Nassau, N. P.			4,855
Newc'le on Tyne		135,000	
Newcastle, N. S. W.		350,000	650,000
New Chwang		1,911,950	
New Zealand		1,486,540	
Oran		6,000	30,000
Oporto		456,813	28,157
Pascagoula		9,000	5,000
Para		1,563,740	1,674,431
Parahyba	6,500	141,250	97,000
Payta		37,100	19,000
Penang		899,060	3,313,010
Pernambuco		2,854,750	2,102,480
Perth		10,000	
Philippville			48,000
Pirarus			25,000
Pisagua		7,000	10,000
Pisco		3,000	4,200
Plymouth		1,600,000	975,000
Portishead		324,000	
Port Chalmers			9,600
Porto Barrios		6,121	
Porto Cabello		241,834	257,516
Porto Cortez		45,856	18,809
Port de Bouc		1,167,543	
Port de Paix		3,252	
Port Elizabeth		30,720	45,390
Port Limon	1,000	52,920	98,688
Port Natal		985,460	1,140,530
Progreso		9,550	2,536
Puerto Bolivar			7,200
Puerto Monitt, Chili		30,000	
Punta Arenas		262,950	78,223
Queenstown			809,160
Rangoon		550,000	2,500,100
Re Union			100,000
Rio G. do Sul		196,240	981,850
Rio Janeiro	150,000	4,148,000	4,216,000
Rockhampton		135,750	
Rosario	150,000	2,239,800	2,723,000
Rotterdam		41,469,350	30,730,000
Sackville			10,200
Saigon		1,471,200	1,285,000
Salaverry		62,500	29,000
Sanchez		6,550	
San Andreas		14,000	14,721
San Domingo		421,490	433,934
San Fernando		30,700	6,918
San Miguel		15,100	
Santa Cruz		42,100	
Santa Marta		500	
Santos	6,000	2,556,000	2,237,500
San Francisco		60,000	60,000
Savanilla	1,900	367,623	247,268
Savonla		2,818,096	1,600,000
Shanghai		20,784,800	43,387,280
Sierra Leone			40,000
Singapore		5,046,140	2,154,050
Sourabaya		300,000	799,000
Southampton		2,795,000	
South Fields		1,611,000	5,000
St. Croix		31,250	47,778
St. Johns, N. F.	22,750	476,216	591,127
St. Kitts		61,700	79,850
St. Lucia		34,790	46,191
St. Martins		1,100	5,750
St. Thomas		27,450	24,270
St. Vincent	4,600	19,600	6,060
Stettin		1,500,000	
Summerside, P. E. I.			26,500
Sunderland		1,780,000	1,530,000
Swatou, China		800,000	
Sydney		1,224,300	3,296,610
Taku Bay, China		1,444,080	1,938,990
Talcahuano		5,218,500	5,000
Tamatave			50,000
Tampico	10,000	28,470	5,100
Tangier		20,000	
Tarpun Bay		570	
Teneriffe		338,750	
Tientsin			700,000
Tjilatjap, Java			416,740
Tilt Cove		11,050	8,336
Townsville		127,020	
Trieste		1,100	400
Trinidad	10,250	446,040	591,983
Truxillo		8,570	10,084
Tsingtau		1,250,000	520,000
Turks Island		8,856	8,887
Valparaiso		2,803,830	4,054,840
Venice	1,575,709	6,807,867	2,800,000
Vera Cruz		19,980	30,400
Victoria		160,000	160,000
Vita		200	
Wellington			1,493,340
Whampoa		2,751,000	
Yokkaichi		1,475,000	
Yokohama		4,022,730	11,051,040
Zanzibar		255,000	174,070
Totals	11,933,019	407,802,134	339,177,801

Crude.

Algoa Bay		15,555	2,046
Buenos Ayres		16,500	
Cartagena		2,000	
Ciudad Bolivar		315	308
Cuba		440,231	486,398
Demerara		254	
Frontera			103
Havana		200,000	260,000
Hayti		138	
Jamaica			144
La Guayra		10,253	
London			5,000
Manchester	5,000	5,000	
Manzanilla		500	
Marseilles		120,000	136,395
Martinique		544	
Melbourne		8,003	960
Montevideo		250	
Para			52
Port Limon			666
Sydney		2,400	
Tampico		107,500	
Totals	5,000	929,489	892,072

Naphtha.

Adelaide		91,220	64,970
Alexander			15,000
Algiers		58,500	47,500
Algoa Bay		274,710	33,673
Anjier, f. o.		4,750	
Antofagasta		2,400	500
Arica		100	100
Auckland			85,300
Bahia		150	
Bangkok			95
Barbadoes		350	1,820
Barrow		865,066	
Belize		95	
Bermuda			6,928
Bluefields		500	4,558
Bocas del Toro			14,736
Bombay		1,031,400	35,000
Brisbane		35,500	9,800
Buenos Ayres	3,000	373,000	131,589
Calcutta		211,250	10,000
Caldera		2,000	1,000
Callao		2,000	500
Cape Town		434,750	37,303
Cartagena		3,095	252
Carupano			20
Cette			344,592
Charlottetown, P. E. I.		600	1,530
Chemulpo		35,000	
Ciudad Bolivar		98	20
Coquimbo		1,500	3,975
Colon		7,112	
Corral		2,040	1,250
Cuba		5,950	21,840
Curacao		1,948	2,252
Delagoa Bay		766,240	80,885
Demerara		60	540
Desterro		500	142
Domenica		50	
Dunkirk		183,813	
Durban		15,500	6,450
East London		106,500	15,831
Eten		250	
Flushing, f. o.		172,250	73,000
Fremantle		131,700	32,200
French Guiana		100	
Furt Blaye			894,012
Gibraltar		25,000	
Guadeloupe			1,197
Guayaquil		4,700	625
Halifax		2,000	1,530
Havre			321,000
Hayti		4,714	1,522
Iquique		1,000	400
Jamaica		1,653	1,805
Java		20,000	
Kurrachee			25,000
La Guayra		200	
Lisbon		133,900	
Liverpool		818,080	1,706,914
London		2,214,600	340,807
Maceio			475
Malta		3,300	1,360
Manaos		94	1,848
Manila		630,000	75,000
Maranham		243	248
Marseilles		160,000	135,754
Martinique		600	650
Melbourne		62,360	19,200
Messina		15,000	
Miragoane		1,000	
Mollendo		1,200	1,100
Mossel Bay		30,250	950
Montevideo		14,575	25,862
New Zealand		605,000	
Nombre de Dios			600
Oran		5,000	8,000
Para		240	495
Penang		50,000	20
Pernambuco		11,500	652
Port Antonio		20	
Portishead		480,600	166,315
Port Limon			450
Port Natal		82,950	20,582
Porto Cortez		2,950	
Punta Arenas		400	
Rio Grande		400	
Rio Gr. do Sul		500	400
Rio Janeiro		5,700	3,450
Rockhampton		39,000	
Rosario		11,700	1,900
Rouen		243,765	1,552,700
San Domingo		486	100
Santos		2,895	3,910
Savanilla		18,250	2,267
Savona		52,250	
Shanghai			35,000
Singapore		40,000	
St. John			5,185
St. Lucia		50	145
St. Thomas			30
Sydney		92,600	120,000
Talcahuana		450	500
Tampico		475	2,085
Tangier			48
Townsville		80,000	
Trinidad		200	
Truxillo			1,000
Valparaiso		15,750	7,910
Venice		55,500	
Wellington			97,700
Totals	3,000	10,894,463	6,836,629

(Special Correspondence to the Reporter.)

Report on Lubricating Oil.

Washington, Oct. 13, 1905.

A new chapter has been added to the annual report of the U. S. Geological Survey upon the production of petroleum in 1904. This chapter deals with the production and characteristics of lubricating petroleum and with the calorific value of the principal grades of fuel oil. Following is an advance abstract of this interesting feature of the report:—

Lubricating petroleum of the finest grade is found in native condition generally in the higher strata of the productive series at shallow depths; it is often associated with more or less salt water, and usually ranges from 30° to 34° Baume'. It is not affected so far as its fluidity is concerned at a temperature of zero or below, and it commands the highest price of any variety of natural petroleum.

There is also a large quantity of lubricating oil manufactured from Pennsylvania crude petroleum, some of which is mixed with the natural product. No other lubricating petroleum is equal to that produced in the Appalachian field. Its reputation is worldwide; nearly all of the railroads in the United States (covering about 97 per cent. of the mileage) and many of the steamship lines use it exclusively. It is largely marketed abroad, being used on railroads and steamship lines. There were 2,135,000 barrels, valued at $12,393,382, exported to foreign countries in 1904. The particular requirements have but to be known and our manufacturers can invariably produce a lubricant that will give the results desired.

The largest yield of natural crude lubricating petroleum comes from Franklin, Pa., and Petroleum, W. Va., which localities have long been celebrated for the production of the finest natural lubricating petroleum found in the United States or elsewhere. It gives a cold and fire test that is unequaled by any other.

The lubricating petroleum is found in the first Venango oil sand, near Franklin, Pa., which has a thickness of 50 feet at a depth of from 275 to 350 feet, and is associated with large quantities of salt water. The wells are small producers, and a large quantity of salt water is pumped with the petroleum. The whole area of productive territory covers about 10 square miles. The wells are operated and pumped in clusters of from 50 to 100 each by a single power, and many of them produce only a few gallons daily. The gravity of the natural lubricating petroleum found in the old field is 32° Baume'; in the area outside of the older territory, but bordering on it, the gravity is 34° Baume'. Its fluidity is not seriously affected by a temperature of zero. The production for 1904 of the Franklin district was 48,499 barrels, to which must be added 26,255 barrels produced at Petroleum, W. Va., making a total of 74,724 barrels.

There is superior natural lubricating petroleum found in Wyoming, and the quantity produced in 1904 was 11,543 barrels, valued at $7 per barrels. There were also 1,583 barrels produced in the Mecca-Beldin field in Ohio, valued at $3.72 per barrel. The Frankling lubricating oil brought $4 per barrel at the wells, and the West Virginia $3.11 a barrel.

Lubrication, as applied in mechanical operations, is the means used to overcome friction. Friction is produced by the motion of one body sliding over another. The product of friction is heat. The heat thus produced causes damage and serious loss in mechanical effect, and it is the object of lubrication either to prevent this heat or to neutralize it and thus reduce the expenditure of force. Lubricants formerly used were of vegetable and animal origin. These lubricants quickly change chemically on exposure to moderate changes of temperature, forming acids which are injurious to metals. They are now used only with great care and in mixture with petroleum lubricants. It is the petroleum or mineral lubricant which satisfies all requirements that are demanded by the trade.

Theoretically, the best lubricant is the one whose adhesiveness is infinite and whose cohesiveness is nil; practically this rule must be adjusted in each case. Adhesiveness is the clinging of the particles of one body to another. Cohesiveness is the clining of the particles of one body to each other. Vicosity is the state of fluidity of a body—its cohesiveness. High pressure (weight) and slow motion require a lubricant of great vicosity and adhesiveness. Little pressure and fast motion require a lubricant of low vicosity and good adhesiveness. Both liquid and solid lubricants are used—liquid lubricants are oils, and solid lubricants are greases. As a rule, the former have a higher lubricating value, and the latter are more economical for loose gears, slow-running cogs, heavy machinery, rolling mills, etc.

The principal physical tests applied to compare and to determine the value of lubricants are:—

1. Vicosity test, to show the degree of fluidity, also the internal friction and the adhesiveness to metallic surfaces of a lubricant at a certain temperature.

2. Flash and fire test, to determine the degree of heat—the temperature—at which lubricants raise vapors that will ignite when mixed with air and exposed to an open flame or live spark and will continue to burn.

3. Specific gravity, the determination of difference in weight of equal volumes of lubricant and distilled water at a certain temperature.

4. The cold test, the degree of low temperature at which a lubricant remains liquid.

5. The evaporation test, to obtain the percentage of volatile matter of a lubricant at a certain temperature, usually the working temperature at which such lubricants are practically applied.

6. Mechanically admixed impurities in a lubricant will show when some of it is poured on a piece of white paper. After a few minutes the oil or grease spot will show a dirty ring around it, or the surface of the oil or grease spot will be spotted or rough.

The petroleum lubricants differ according to the crude petroleum from which they are made. The chemical composition of crude petroleum from different localities is not the same, which shows that the materials used in its preparation in the earth vary, or that by filtration through different strata different combinations are formed.

Calorific Value of Petroleum.—The calorific or heat-producing property of petroleum when combined with proper proportions of air is measured by the number of pounds of water from and at 212° f. evaporated by 1 pound of petroleum fuel. It has also been determined that the heat energy necessary to evaporate 1 pound of water would raise 966 pounds of water at or near 39.1° F. 1 degree, which is usually written B. T. U., for British Thermal Unit. The French thermal standard is the "Calorie," and is the quantity of heat necessary to raise one kilogram (2.2046 pounds) of water 1° centigrade (1.8° F.). The "B. T. U." is, therefore, only equal to 0.252 calorie.

The following table shows the comparative value of fuel petroleum from the principal fields of the United States and from Russia:—

Locality.	Specific gravity.	Actual lbs. of water evaporated in boilers at 212° F.
Pennsylvania crude	.8291	14.85
Pennsylvania crude, heavy	.8860	16.00
Ohio, Lima	.8383	15.45
Texas, Beaumont	.9210	14.80
Texas, Sour Lake	.9333	14.40
Louisiana, Jennings	.9090	14.60
California, Bakersfield	.9589	14.20
Russia, Baku	.8805	14.80

There is a larger variation in the fuel value of coal than there is in the fuel value of petroleum. For convenience of comparison of petroleum and coal, it is assumed that 1 pound of average petroleum will evaporate 15 pounds of water from and at 212° F. as compared with 1 pound of coal of 2,000 pounds. Most of the petroleum in Texas, Louisiana and California comes in competition with the poorer grades of coal produced in Kansas and Indian Territory and with that imported into San Francisco:—

Fuel.	Pounds of water evaporated at 212° F. per pound of combustibles	Barrels of petroleum to equal ton of coal of 2,000 lbs.
Petroleum, 16° to 40, aver.	15.0	—
Anthracite, Pennsylvania	9.8	4.2
Pittsburg, Pa., lump	10.0	4.3
Pittsburg, Pa., slack	7.5	3.3
Pocahontas, W. Va., lump	10.5	4.5
Cumberland, Md., lump	10.0	4.3
Ohio, Hocking Val., lump	8.6	3.5
Indiana, block, lump	9.5	4.1
Ind., ordinary run of mine	7.8	3.4
Kansas, av. run of mine	7.3	3.2
Indian Ter. average	7.5	3.3
British Colum., Nanaimo	7.3	3.2
British Col., Co-operative	8.9	3.8
Washington, Carbon Hill	6.2	2.7
Cardiff, lump, Wales	10.0	4.3

The best fuel results are secured when petroleum is atomized by compressed air that has been heated by the escaping product of combustion. Steam is most generally used for this purpose. Fuel petroleum that is to be transported in ships or stored within buildings, should not contain any naphtha or other light constituents. It should have a flash test at from 170° to 220° F. Its gravity should be from .9333 to .9032, or from 20° to 25° Baume. Much heavier fuel oils have been used successfully, but they are more apt to clog the strainers and to carry a percentage of water in suspension. The oils of heavier gravities, when sold by measure and free from water, have given results almost equal to the lighter grades. One of the main conditions necessary for economical results is to have the petroleum properly atomized and mixed with the right proportion of air. It is also important that the combustion take place in a chamber that is partially separated from the cold sheets of a boiler by fire brick or asbestos. Where the space in the combustion chamber will permit, an arch of fire brick is built over the grate bars within 5 or 6 inches of the bottom of the boiler and parallel to it, about every fourth brick being left out. Inside of this open arch a checkerwork of loose brick should be placed, upon which the atomized petroleum should spray. The isolated condition of this combustion chamber causes a thorough mixture and an intense heat. In marine boilers space may not allow this arrangement. In such boilers the sides and back should be lined with fire brick, and an arch be projected from the bridge (well) one-third of the height of the fire box. Good combustion does not produce any smoke.

Internal combustion engines using crude petroleum, refined petroleum and naphtha have been sucessfully operated, and are the most economical, saving 46 per cent. over the high efficiency of the combination of boiler and engine with triple expansion and condenser. The following comparisons are based on the indicated horsepower per weight of 310 pounds, which is equal to 1 barrel of ordinary crude petroleum, which under favorable condition will evaporate 15 pounds of water per pound of petroleum, and that one brake horsepower can be secured from the evaporation of 16 pounds of water. For comparison there are 310 pounds of naphtha, and 310 pounds are used of natural gas.

High duty engines using best lump coal under boiler 310 pounds=190 brake horsepower hours.

High duty engines using petroleum under boilers 310 pounds (1 barrel)=291 brake horsepower hours.

Internal combustion engines using crude petroleum 310 pounds (1 barrel)=424 brake horsepower hours.

Diesel internal combustion engines using crude petroleum 310 pounds (1 barrel)=517 brake horsepower hours.

Automobile internal combustion using 70° B. naphtha pounds (1.4 barrels)=530 brake horsepower hours.

Natural gas high duty engines, 10 cubic feet per horsepower, 310 pounds (6,800) cubic feet =680 brake horsepower hours.

Taking the internal combustion using crude petroleum which will give 424 brake horsepower hours, or in other words will furnish 1 horsepower for 424 hours, and using it as the standard the percentage of the power secured by the same weight of fuel for the different methods would be as follows: Coal, 43 per cent.; high duty steam engines using petroleum under boilers, 68½ per cent.; internal combustion engines using petroleum, 100 per cent.; Diesel engine (standard), 122 per cent.; automobile motor engines, 125 per cent.; natural gas engine, 160 per cent.

Petroleum Flash Test in Australia.

The flash point of kerosene in Australia has been raised from 73 deg. to 80 deg., in spite of the protest of the Colonial Oil Company, which is the Australian alias of the ubiquitous Standard Oil Trust. The determination of the central customs administration to fix the flashing point or standard of kerosene at 80 deg. F. is the result of pressure upon the department by experts and others. The flashing point is the degree at which kerosene is considered safe for use, and at which it will not readily explode or ignite. For many years past the standard in Victoria has been 73 deg., and no oil was permitted to go into consumption as kerosene under that standard. Any mineral oil of lower standard had to be marked "dangerous," so that consumers might not unwittingly incur risks. Each other state had its own act relating to kerosene, and the standards varied. In New South Wales the degree was 110 open test, which was equal to 83 deg. closed test, used in Victoria. Under the Commonwealth Customs Act, mineral oil and mineral spirits are prohibited exports, "unless imported under and subject to such restrictions as may be declared by proclamation." It was urged that the standard had been raised in India, and that similar action was contemplated in England. The department therefore decided to make the standard in Australia 80 deg.

(Special Correspondence to the Reporter.)

London Drug Statistics.

London, Oct. 4, 1905.

The following table showing the arrivals and deliveries from London docks and warehouses during September, with the stocks on hand on Sept. 30, 1905 and 1904:—

ARTICLES.	Landed in London in September, 1905.	Delivered Crown Docks & Warehouses in London, 1905.	Stock in London Sept. 30, 1905.	Stock in London Sept. 30, 1904.
Shellac,				
Orange, cs.	3,100	2,625	14,120	13,611
Garnet, cs.	25	689	2,163	5,116
Buttons, cs.	2,211	1,150	6,890	8,213
	5,336	4,444	23,173	26,940
Quinine, ozs.		35,008	2,959,744	3,347,536
Aloes, pkgs.	102	129	419	732
Camphor, pkgs.	359	456	852	1,698
Cinchona bk, "	1,467	1,193	8,293	6,663
Cardamoms, cs.	393	517	2,272	2,927
Cochineal, bgs.	91	69	259	284
Colombo root, bgs	247	144	286	331
Cubebs, bgs.	9	5	477	694
Dragons blood, cs	18	21	126	49
Gamboge, cs.	37	58	27	11
Gums,				
Arabic, pkgs.	527	603	6,180	7,062
Asafoetida, cs.	586	2	871	389
Benzoin, cs.	17	201	702	1,432
Myrrh, pkgs.	46	63	82	93
Olibanum, pkg	314	516	1,845	2,616
Tragacanth, "	312	964	6,883	3,045
Kowrie, net tons	202	244	1,085	1,178
Ipecac, pkgs.	40	88	116	438
Sarsap'la, bls.	28	11	101	157
Rhubarb, cs.	190	77	308	279
Senna, pkgs.	1,516	1,142	3,954	2,585

IMPORTS ENTERED AT NEW YORK FOR CONSUMPTION

For the Week Ending October 13, 1905

ACID, ACETIC—21 demj, 1,157 lbs, O F Zinkeisen, Br Princess, Antwerp
BENZOIC—35 cks, 7,717 lbs, Kuttroff, Pickhardt & Co, Rotterdam, Rotterdam
5 cs, E Roboulin Fils, La Bretagne, Havre
BUTYRIC—13 cs, Hensel, Bruchmann & L, Pennsylvania, Hamburg
CARBOLIC—74 dms, Hensel, B & L, Victorian, Liverpool
40 bottles, 20 cs, 4,240 lbs, Schoellkopf, H & H Co, Victorian, Liverpool
25 cks, 1,049 gals, Schoellkopf, H & H Co, Minnehaha, London
OXALIC—65 cks, 2,474 lbs, J L & D S Riker, Bristol City, Bristol
PHTALIC—6 cks, 3,687 lbs, Heller & Merz Co, Blucher, Hamburg
ALCOHOL—2 bbls, 91 gals, F O Boyd, Batavia, Hamburg
ALIZARINE—2 cks, 822 lbs, Kuttroff, Pickhardt & Co, Vaderland, Antwerp
35 cks, H A Metz & Co, Rotterdam, Rotterdam
40 cks, 16,689 lbs, Kuttroff, Pickhardt & Co, Rotterdam, Rotterdam
10 cks, Farb of Elberfeld Co, Vaderland, Antwerp
ASS'T—30 cks, 12,595 lbs, Kuttroff, Pickhardt & Co, Montreal, Havre
AMMONIA, MURI—60 cks, 64,360 lbs, C de P Field, Bristol City, Bristol
PHOSPHATE—5 bbls, 3,865 lbs, S Jordan & Co, America, Antwerp
SAL—20 cks, 22,003 lbs, C de P Field, Bristol City, Bristol
SULPH—500 bgs, 112,000 lbs, Parsons & Petit, Victorian, Liverpool
24 cks, 22,804 lbs, J Wilckes Co, Br Princess, Antwerp
ANILINE COLORS—16 bbls, 8,181 lbs, Geigy Aniline & Ext Co, Vaderland, Antwerp
25 cs, Heller & Merz Co, Rotterdam, Rotterdam
110 cks, 2 cs, Kuttroff, Pickhardt & Co, Vaderland, Antwerp
192 cks, H A Metz & Co, Rotterdam, Rotterdam
12 cks, Read, Holliday & Sons, Victorian, Liverpool
1 cs, A Klipstein & Co, Victorian, Liverpool
5 bbls, Cassella Color Co, Victorian, Liverpool
107 cks, Hensel, B & L, Rotterdam, Rotterdam
79 cks, 63 kegs, Farb of Elberfeld Co, Rotterdam, Rotterdam
78 cs, Farb of Elberfeld Co, Rotterdam, Rotterdam
11 cs, 103 cks, Kuttroff, Pickhardt & Co, Rotterdam, Rotterdam
66 cs, 44 cks, 27 kegs, Farb of Elberfeld Co, Vaderland, Antwerp
10 bbls, W F Sykes & Co, Vaderland, Antwerp
19 cks, C Bischoff & Co, Main, Bremen
37 cks, 27 kegs, 1 cs, Berlin Aniline Wks, Pennsylvania, Hamburg
10 bbls, W F Sykes & Co, Montreal, Havre
3 bbls, Heller & Merz Co, America, Antwerp
3 bbls, C Bischoff & Co, America, Antwerp
OIL—5 dms, 5,470 lbs, J A & W Bird & Co, Consuelo, Hull
27 dms, 27,802 lbs, Selling Co, Minnehaha, London
19 dms, 23,789 lbs, Read, Holliday & Sons, Consuelo, Hull
SALT—19 cks, Berlin Aniline Works, Pennsylvania, Hamburg
ANETHOL—4 cs, 441 lbs, Geo Lueders & Co, Pennsylvania, Hamburg
ANGELICA ROOT—20 bls, J L Hopkins & Co, Pennsylvania, Hamburg
ANNATTO—12 bgs, 2,400 lbs, J E Kerr, Baker, Jamaica
ARCHIL—7 cks, 4,862 lbs, Read, Holliday & Sons, Victorian, Liverpool
ARGOLS—825 pkgs, 261,905 lbs, Tartar Chemical Co, Madonna, Marseilles
429 pkgs, 11,204 lbs, Tartar Chemical Co, Citta di Messina, Messina
ARSENIC—100 cks, 24,701 lbs, Fuerst Bros & Co, Kentucky, Stettin
78 cks, 16,500 lbs, A Klipstein & Co, Kentucky, Stettin
BARIUM BINOXIDE—50 cks, 25 tons, Rogers & Pyatt, Minnehaha, London
22 cks, 10 tons, Drevet Mfg Co, Minnehaha, London
10 cks, Harshaw, F & G Co, Minnehaha, London
BARYTES—350 bgs, 78 cks, 64 tons, Gabriel & Schall, Main, Bremen
CAIB—122 cks, D F Tiemann & Co, Consuelo, Hull
BENZOLE—43 dms, 32,815 lbs, Schoellkopf, H & H Co, Kentucky, Stettin
BISMUTH—4 cs, McKesson & Robbins, St Louis, London
BLANC FIXE—26 cks, 21,106 lbs, Kraemer & Foster, Rotterdam, Rotterdam
30 cks, 31,525 lbs, J W Hampton Jr & Co, Pennsylvania, Hamburg
BLEACHING POWDER—171 cks, 232,964 lbs, J L & D S Riker, Victorian, Liverpool
141 cks, 189,173 lbs, J L & D S Riker, Bristol City, Bristol
37 bbls, 33,759 lbs, F A Reichard, Vaderland, Antwerp
20 bbls, 18,475 lbs, F A Reichard, Vaderland, Antwerp
17 bbls, 15,136 lbs, F A Reichard, Vaderland, Antwerp
141 bbls, 110,265 lbs, A Klipstein & Co, Vaderland, Antwerp
56 bbls, 68852 lbs, Wing & Evans, Br Princess, Antwerp
BONE BLACK—15 cs, G W Sheldon & Co, Br Princess, Antwerp
BRIMSTONE—800 tons, A S Malcomson, Citta di Messina, Girgenti
500 tons, Parsons & Petit, Citta di Messina, Girgenti
BRISTLES—17 cs, 1 ck, 2,161 lbs, Wells, Fargo & Co, Umbria, Liverpool
14 cs, 2,957 lbs, Wells, Fargo & Co, La Gascogne, Havre
6 cs, 600 lbs, Wells, Fargo & Co, Hamburg, Hamburg
19 pkgs, 5,151 lbs, Wells, Fargo & Co, Gr Kurfurst, Bremen
7 cks, 3,408 lbs, Lewisohn Imp & Tr Co, K W der Grosse, Bremen
12 cs, 5 cks, Wells, Fargo & Co, Lucania, Liverpool
34 cks, 13,727 lbs, H Conheim, Batavia, Hamburg
4 cs, 522 lbs, Wells, Fargo & Co, New York, London
16 cs, 2,153 lbs, E & H Levy, Pennsylvania, Hamburg
18 cs, 3,828 lbs, F W Von Stade, La Bretagne, Havre
21 pkgs, 3,199 lbs, Wells, Fargo & Co, St Louis, London
BRONZE POWDER—18 cs, 7,200 lbs, Bronze Powder Works, Main, Bremen
2 cs, 300 lbs, K Schmidt & Co, Main Bremen
5 cs, 1,700 lbs, B F Drakenfeld & Co, Main, Bremen
13 cs, 4,355 lbs, Gerstendorfer Bros, Main, Bremen
15 cs, 3,000 lbs, Baer Bros, Main, Bremen
26 cs, 12,125 lbs, M J Corbett, Main, Bremen
CALCIUM,CHLO—40 dms, 22,512 lbs, J L & D S Riker, Victorian, Liverpool
CAMPHOR—85 cs, 11,236 lbs, Fearon, Daniel & Co, Coastwise, Kobe
50 cs, 6,475 lbs, Fearon, Daniel & Co, Coastwise, Kobe
CANTHARIDES—2 bbls, 440 lbs, Stallman & Fulton Co, Hamburg, Hamburg
CARDAMOMS—13 cs, 1,801 lbs, Parke, Davis & Co, New York, London
21 cs, Schieffelin & Co, New York, London
CASSIA—1,000 bls, 48,775 lbs, J Kissock & Co, African Prince, Canton
CASTOR SEED—1,558 bgs, 4,452 bush, H J Baker & Bro, Minneapolis, London
20 bgs, 44 bush, H A Metz & Co, Batavia, Hamburg
CHEMICAL COMP—2 cs, W F Sykes & Co, Montreal, Havre
PREP—5 kegs, Roessler & H Chem Co, Batavia, Hamburg
10 cs, Roessler & H Chem Co, Batavia, Hamburg
38 cs, Merck & Co, New York, London
30 cs, Merck & Co, Blucher, Hamburg
4 cks, Hensel, B & L, Rotterdam, Rdam
5 cs, Roessler & H Chem Co, Rotterdam, Rotterdam
8 cs, Roessler & H Chem Co, Rotterdam, Rotterdam
22 cs, Roessler & H Chem Co, Rotterdam, Rotterdam
2 cs, C Bischoff & Co, Oscar II, Copenhagen
2 cs, C Bischoff & Co, Kaiser Wm II, Bremen
57 cs, Roessler & H Chem Co, Pennsylvania, Hamburg
43 cs, Roessler & H Chem Co, Pennsylvania, Hamburg
92 pkgs, Schering & Glatz, Pennsylvania, Hamburg
SALT—22 cs, R F Downing & Co, Penna Hamburg
8 cs, A Klipstein & Co, Montreal, Havre
CHINA CLAY—30 cks, 15 tons, F A Reichard, Victorian, Liverpool
50 cks, 25 tons, J C Wiarda & Co, Victorian, Liverpool
25 cks, 12½ tons, J Lee Smith & Co, Victorian, Liverpool
CHLORALHYDRATE—8 cs, 712 lbs, Schering & Glatz, Penna, Hamburg
CLOVES—500 bls, Dodge & Olcott, Minnehaha, London
20 bls, Dodge & Olcott, Gerty, Trieste
COAL TAR PREP—2 cks, Kuttroff, Pickhardt & Co, Vaderland, Antwerp
24 cks, H A Metz & Co, Rotterdam, Rotterdam
10 kegs, Farb of Elberfeld Co, Rotterdam, Rotterdam
3 cks, Berlin Aniline Works, Penna, Hburg
1 cs, Berlin Aniline Works, Penna, Hburg
2 cks, Schoellkopf, H & H Co, Br Princess, Antwerp
39 dms, W F Sykes & Co, Montreal, Havre
COCHINEAL—22 bgs, 2,132 lbs, A D Hitch & Co, Victorian, London
12 bgs, 2,664 lbs, L E Ransom, Victorian, London
COCOA BUTTER—3 cs, 1,080 lbs, Runkel Bros, Rotterdam, Rotterdam
111 cs, 20,047 lbs, Habicht & Braun, Rotterdam, Rotterdam
55 bgs, 11,288 lbs, Habicht & Braun, Rotterdam, Rotterdam
22 bgs, 4,619 lbs, Stollwerck Bros, Rotterdam, Rotterdam
69 bls, 10,962 lbs, Habicht, Braun & Co, Vaderland, Antwerp
COLORS—5 cs, J A Munkett, New York, Ldon
4 cs, F Fezandie, La Lorraine, Havre
1 cs, Favor, Ruhle & Co, La Lorraine, Hvre
11 cks, G Seigel Co, Rotterdam, Rotterdam
35 bbls, Hemingway & Co, Minnehaha, London
2 cs, B F Drakenfeld & Co, La Lorraine, Havre
4 kegs, Perry, Ryer & Co, La Lorraine, Havre
1 cs, B F Drakenfeld & Co, Majestic, Liverpool
3 cks, 2 kegs, Perry, Ryer & Co, Majestic, Liverpool
1 cs, A Sartorius, La Bretagne, Havre
CORIANDER SEED—336 bgs, 33,600 lbs, Stallman & Fulton Co, Minneapolis, London
467 bgs, 44,800 lbs, J Kissock & Co, Minneapolis, London
583 bgs, 55,986 lbs, Stallman & Fulton Co, Minnehaha, London
296 bgs, 33,625 lbs, Stallman & Fulton Co, Minnehaha, London
CORKS—28 bls, 1,782 lbs, Wildman & Terhune, Carthaginian, Glasgow
CORKWOOD—425 bls, Armstrong Cork Co, Carthaginian, Glasgow
145 bls, 22,862 lbs, Lawrence, Johnson & Co, Carthaginian, Glasgow
41 bls, Empire Cork Co, Minnehaha, London
700 bls, Gudewell & Bucknall, Ulriken Cadiz
295 bls, Lawrence, Johnson & Co, Pennsylvania, Hamburg
322 bls, Gudewell & Bucknall, Cedric, Liverpool
CREOSOTE—50 dms, 19 tons, Schoellkopf, H & H Co, Astoria, Glasgow
CUTCH—200 bgs, D A Shaw & Co, Bovic, Liverpool
100 cs, D A Shaw & Co, Bovic, Liverpool
CUTTLEFISH BONE—50 straps, Stallman & Fulton Co, Slavonia, Trieste
DEXTRINE—200 bgs, 43,431 lbs, C Morningstar & Co, Oscar II, Stettin
DRUGS—64 bls, Eimer & Amend, Slavonia, Trieste
ERGOT—12 bgs, 2,028 lbs, Parke, Davis & Co, Batavia, Hamburg
ETHYL CHLO—6 cs, 176 lbs, Leeming & Co, La Lorraine, Havre
FENNEL SEED—39 bgs, 4,252 lbs, Parke, Davis & Co, Batavia, Hamburg
FRANKFORT BLACK—8 cks, C Wix & Co, Rotterdam, Rotterdam
FULLER'S EARTH—775 bgs, 77½ tons, L A Soloman & Bro, Minnehaha, London
300 bgs, 25 tons, A de Ronde & Co, Jersey City, Bristol
FUSTIC—168 pcs, W & A Leaman, Seminole Azua
114 tons, O C Kanzow, Flandria, Gonaives
EXT—50 cks, 27,666 lbs, J Campbell & Co, Victorian, Liverpool
2 cks, 1,022 lbs, Oakes Mfg Co, Victorian Liverpool
25 cks, 11,660 lbs, West Indies Chem Co St Louis, London
GALLS—95 cs, F Bredt & Co, African Prince, Hong Kong
GAMBIER—221 bls, 31,696 lbs, Haebler & Co African Prince, Singapore
263 bls, 58,016 lbs, Haebler & Co, African Prince, Singapore
1,022 bls, 223,440 lbs, J H Recknagel & Son, Indramayo, Singapore
5,480 bls, 1,116,154 lbs, J W Phyfe & Co African Prince, Singapore
GELATINE—9 cks, 3,182 lbs, W Sommerville & Son, Minnehaha, London
20 pkgs, 2,201 lbs, H Pfaltz, Montreal Havre
35 cs, Zinkeisen & Co, America, Antwerp
GINGER—366 bgs, Frame & Co, African Prince, Singapore
4 bgs, 681 lbs, Gillespie Bros & Co, Alleghany, Kingston
GLASS, PLATE—4 cs, 2,330 ft, Bendit, Drey & Co, Vaderland, Antwerp
3 cs, 1,743 ft, Semon, Bache & Co, Vaderland, Antwerp
27 cs, 16,660 ft, United Bavarian L Glass Co, Rotterdam, Rotterdam
4 cs, J P Morgan & Co, Vaderland, Antwerp
15 cs, L Popper & Son, Vaderland, Antwerp
WINDOW—234 cs, 16,060 lbs, Royal Glass Works, Vaderland, Antwerp
89 cs, 2,808 lbs, Semon, Bache & Co, Vaderland, Antwerp
194 cs, 10,088 lbs, T W Morris, Victorian Liverpool
41 cs, 2,585 lbs, Semon, Bache & Co, Victorian, Liverpool
766 cs, 39,450 lbs, Sutphin & Meyer, Vaderland, Antwerp
113 cs, 5,876 lbs, Pittsburgh Plate Glass Co, Vaderland, Antwerp
125 cs, 6,250 lbs, R Schroeder, Vaderland, Antwerp
545 cs, 38,642 lbs, Semon, Bache & Co, Br Princess, Antwerp
346 cs, 77,628 lbs, D A Van Horne & Co, Br Princess, Antwerp
214 cs, 11,128 lbs, B Griffin & Co, Br Princess, Antwerp
1,057 cs, 77,074 lbs, Holbrook Bros, Br Princess, Antwerp
GLYCERINE—80 dms, 90,541 lbs, Marx & Rawolle, Madonna, Marseilles
30 dms, 32,635 lbs, J Munroe & Co, Madonna, Marseilles
60 dms, 68,760 lbs, American Express Co, Madonna, Marseilles
50 dms, 57,024 lbs, Marx & Rawolle, Minnehaha, London
20 dms, 21,691 lbs, Grasselli Chem Co, Montreal, Bordeaux
10 dms, 10,982 lbs, C J Schelling & Son, Br Princess, Antwerp
15 dms, 15,559 lbs, Marx & Rawolle, Victorian, Liverpool
REFINED—10 cs, 500 lbs, E Fougera & Co, Minnehaha, London
10 cs, 1,120 lbs, Schering & Glatz, Penna, Hamburg
GREASE, WOOL—10 bbls, 3 cs, 2,315 lbs, Zinkeisen & Co, Penna, Hamburg
GUM—8 cs, 1,070 lbs, Stallman & Fulton Co, Minnehaha, London
29 cs, Dodge & Olcott, Minnehaha, London
ALOES—16 cs, 4,480 lbs, McKesson & Robbins, New York, London
22 cs, H W Peabody & Co, New York, London
110 cs, 11,000 lbs, Foulke & Co, Prins Wm IV, Curacoa
55 cs, 5,917 lbs, Foulke & Co, Prins Wm IV, Curacoa
23 bbls, 4,093 lbs, Foulke & Co, Prins Wm IV, Curacoa
ARABIC—100 bls, Parke, Davis & Co, Victorian, Liverpool
BENJAMIN—10 cs, Dodge & Olcott, African Prince, Hong Kong
COPAL—120 cs, D A Shaw & Co, Indramayo, Singapore
112 cs, D A Shaw & Co, Indramayo, Singapore
168 cs, J W Phyfe & Co, African Prince, Singapore
DAMAR—100 cs, J Meyer & Son, Victorian, Liverpool
GUAIAC—2 bbls, 635 lbs, O C Kanzow, Flandria, Gonaives
KAURI—463 cs, A Klipstein & Co, Minnehaha, London
1 cs, A Klipstein & Co, Coastwise, San Francisco
TRAG—19 cs, 2,688 lbs, Parke, Davis & Co, New York, London
INDIGO—50 cks, H A Metz & Co, Rotterdam, Rotterdam
AUXILIARY—21 cks, H A Metz & Co, Oscar II, Stettin
IODINE—42 kegs, 4,754 lbs, Watjen, Toel & Co, Finance, Colon
IRON, PYRITES—229,900 lbs, Davis Sulphur Ore Co, Sheppy Allison, Huelva
7,586,700 lbs, Davis Sulphur Ore Co, Sheppy Allison, Huelva
KOLA NUTS—5 bgs, 1,208 lbs, J E Kerr & Co Baker, Jamaica
LEAD, NITRATE—20 cks, 11,200 lbs, Jas Lee & Co, Bovic, Liverpool
LICORICE ROOT—12,941 bls, 5,132,987 lbs, MacAndrews & Forbes, Provincio, Smyrna
LIME, CITRATE—67 cks, Citro Chemical Co, Citta di Messina, Messina
JUICE—2 puns, 228 gals, J E Kerr & Co Baker, Jamaica
LITHOPONE—40 cks, 22,046 lbs, Gabriel & Schall, Main, Bremen
LOGWOOD—50,000 lbs, Huttlinger & V, Alene, Miragoane
50,000 lbs, O C Kanzow, Alene, Miragoane
52 tons, W & A Leaman, Seminole, Sto Domingo
201,000 lbs, O C Kanzow, Flandria, Gonaives
225 tons, O C Kanzow, Or Nassau, Aux Cayes
100 tons, O C Kanzow, Pr Wm IV, Aquim
MACE—25 cs, J W Phyfe & Co, African Prince, Singapore
5 cs, 841 lbs, Middleton & Co, Maracas, Trinidad
MANGROVE BARK—927 bgs, 135,000 lbs, Foulke & Co, Maracaibo, Curacao
MAGNESIA, SULP—200 bgs, 44,092 lbs, A Klipstein & Co, Pennsylvania, Hamburg
MANURE SALT—2,000 bgs, 446,600 lbs, Peters, White & Co, Pisa, Hamburg
1,500 bgs, 335,981 lbs, Heller, Hirsh & Co, Pisa, Hamburg
MEDICAL FLOWERS—1 bl, Parke, Davis & Co, Batavia, Hamburg
LEAVES—20 bls, 2,200 lbs, Stallman & Fulton Co, Hamburg, Hamburg
15 bls, 1,650 lbs, B Fischer & Co, Hamburg, Hamburg
3 bls, Parke, Davis & Co, Batavia, Hamburg
52 bls, Parke, Davis & Co, Batavia, Hamburg
25 bls, Peek & Velsor, Minnehaha, London
8 bls, Fitzsimmons-Gleeson Co, Pennsylvania, Hamburg
35 bls, Stallman & Fulton Co, Pennsylvania, Hamburg
30 bls, Stallman & Fulton Co, Cedric, Liverpool
PREP—4 cs, E Fougera & Co, Minnehaha, London
20 cs, Hensel, B & L, Main, Bremen
12 cs, G Lueders & Co, K Albert, Genoa
3 cs, McKesson & Robbins, St Louis, London
SEEDS—46 bgs, 7,550 lbs, R Hillier's Son Co, Batavia, Hamburg
ROOTS—29 bls, Parke, Davis & Co, Batavia, Hamburg
17 bls, Fitzsimmons, Gleeson & Co, Pennsylvania, Hamburg
WATER—575 demj, Euler & Robeson, Madonna, Marseilles
MICA—10 cs, 1,581 lbs, A O Schoonmaker, New York, London
4 cs, 542 lbs, A O Schoonmaker, St Louis, London
MUSTARD SEED—250 bgs, 55,000 lbs, J D Nordlinger, Oscar II, Copenhagen
300 bgs, 66,000 lbs, J Kissock & Co, Oscar II, Copenhagen
NAPHTHALINE—34 cs, 4 tons, Schoellkopf, H & H Co, Minnehaha, London
NUTMEGS—50 cs, D A Shaw & Co, Indramayo, Singapore
100 cs, R Crooks & Co, Indramayo, Singapore
681 cs, J Kissock & Co, Indramayo, Singapore
74 cs, J Kissock & Co, Rotterdam, Rotterdam
100 cs, J H Recknagel & Son, Indramayo, Singapore
100 cs, Frame & Co, African Prince, Singapore
100 cs, 6,650 lbs, J W Phyfe & Co, African Prince, Singapore
100 cs, 6,650 lbs, J W Phyfe & Co, African Prince, Singapore
200 cs, 13,300 lbs, J Kissock & Co, African Prince, Singapore
100 cs, 6,650 lbs, J Kissock & Co, African Prince, Singapore
26 bbls, 4,141 lbs, Middleton & Co, Maracas, Trinidad
OCHER—250 cks, 192,592 lbs, J W Coulston & Co, Madonna, Marseilles
126 cks, 65,132 lbs, F A Reichard, Madonna, Marseilles
OIL—11 dms, Dodge & Olcott, Minnehaha, London
ALMOND—8 cs, Dodge & Olcott, Minnehaha, London
ANISEED—60 cs, Dodge & Olcott, African Prince, Hong Kong
170 cs, Dodge & Olcott, African Prince, Hong Kong
BERGAMOT—35 cs, 871 lbs, Euler & Robeson, Citta di Messina, Messina
CASSIA—100 cs, Dodge & Olcott, African Prince, Hong Kong
COCOANUT—100 cks, 3,997 gals, Boos & Co, Prins Wm IV, Trinidad
COD—297 cs, 14,996 gals, Swan & Finch Co, Silvia, Halifax
CODLIVER—50 bbls, 1,500 gals, Schoellkopf, H & H Co, Kentucky, Copenhagen
25 bbls, 750 gals, Schieffelin & Co, Kentucky, Copenhagen
50 cs, 450 gals, Schieffelin & Co, Oscar II, Copenhagen
60 bbls, 1,800 gals, Stallman & Fulton Co, Penna, Hamburg
ESS'L—52 cs, Euler & Robeson, La Lorraine, Havre
7 cs, Dodge & Olcott, La Lorraine, Havre
5 cs, Schoellkopf, H & H Co, Madonna, Marseilles
26 cs, Fritzsche Bros, Penna, Hamburg
99 pkgs, Euler & Robeson, Madonna, Marseilles
4 cs, Geo Lueders & Co, K Albert, Genoa
4 cs, Geo Lueders & Co, K Luise, Naples
HAARLEM—20 cs, Stallman & Fulton Co, Rotterdam, Rotterdam
LAVENDER—20 cs, Geo Lueders & Co, Liguria, Naples
116 cs, Euler & Robeson, Madonna, Marseilles
LEMON—100 cs, Dodge & Olcott, Citta di Messina, Messina
MYRBANE—10 dms, 12,500 lbs, Read Holliday & Sons, Consuelo, Hull
OLIVEFOOTS—100 bbls, 31,160 lbs, F R Leonori & Co, Citta di Torino, Catania
100 bbls, 5,000 gals, Oil Seeds Co, Patria, Lisbon
175 bbls, 8,750 gals, F R Leonori & Co, Pr Oskar, Genoa
75 bbls, 5,720 gals, F R Leonori & Co, K Albert, Genoa
140 bbls, 5,000 gals, Habicht, B & Co, K Albert, Genoa
100 bbls, Habicht, B & Co, Pr Oskar, Genoa
150 bbls, Nittner & Slavitz, Ulriken, Malaga
50 bbls, Oil Seeds Co, Ulriken, Malaga
250 bbls, 11,892 gals, Geisenheimer & Co, Ulriken, Malaga
50 bbls, 2,584 gals, Holbrook Mfg Co, Ulriken, Malaga
PEPPERMINT—10 cs, 600 lbs, Magnus & Lauer, Minnehaha, London
RAPESEED—200 bbls, 10,406 lbs, Vacuum Oil Co, Minnehaha, London
250 bbls, 12,733 gals, Vacuum Oil Co, Victorian, Liverpool
ROSE—2 cs, Geo Lueders & Co, Main, Bremen
SOD—65 cks, B W Jones, Victorian, Liverpool
60 cks, 24,432 lbs, O Hann & Bro, Consuelo, Hull
WOOD (CHINA)—125 cks, 63,840 lbs, A Mason, African Prince, Singapore
VEGETABLE—1 ck, Hensel, B & L, Rotterdam, Rotterdam
OZOKERITE—573 bgs, C Morningstar & Co, Kentucky, Stettin
PARAFFINE—28 cks, 9,673 lbs, Zinkeisen & Co, Vaderland, Antwerp
PEPPER—330 bgs, L Littlejohn & Co, Indramayo, Penang
408 bgs, J Kissock & Co, Indramayo, Penang
1,381 bgs, J Clark & Co, Indramayo, Penang
555 bgs, J Clark & Co, Ryndam, Rotterdam
189 bgs, D A Shaw & Co, Indramayo, Singapore
400 bgs, J Clark & Co, Rotterdam Rdam
399 bgs, Frame & Co, African Prince, Singapore
2,513 bgs, 858,169 lbs, J W Phyfe & Co, African Prince, Singapore
3,463 bgs, 489,972 lbs, J W Phyfe & Co, African Prince, Singapore
399 bgs, J Kissock & Co, African Prince, Singapore
474 bgs, D A Shaw & Co, African Prince, Singapore
WHITE—528 bgs, Frame & Co, African Prince, Singapore
1,176 bgs, 154,812 lbs, J W Phyfe & Co, African Prince, Singapore
PITCH—56 bbls, Safty Insolated Co, Victorian, Liverpool
POLISHING POWDER—40 cks, Hansen & Van Winkle, Consuelo, Hull
POMADE—75 cs, Geo Lueders & Co, K Luise, Naples
POPPY SEED—150 bgs, 327 bush, Levy & Levis Co, Oscar II, Copenhagen
60 bgs, 6,614 lbs, D R James & Bro, Oscar II, Copenhagen
POTASH, CARB—20 cks, 24,442 lbs, A Klipstein & Co, Penna, Hamburg
50 cks, A Klipstein & Co, Penna, Hamburg
CAUSTIC—50 dms, A Klipstein & Co, Penna, Hamburg
4 cks, A Klipstein & Co, Penna, Hamburg
CYANIDE—200 cs, 10 tons, Schoellkopf, H & H Co, Minnehaha, London
225 cs, Roessler & H Chem Co, Pennsylvania, Hamburg
MURI—750 bgs, 167,640 lbs, Peters, White & Co, Gr Kurfurst, Bremen
4,500 bgs, 1,008,000 lbs, H J Baker & Bro, Penna, Hamburg
7,500 bgs, 1,676,400 lbs, Peters, White & Co, Pisa, Hamburg
250 bgs, 55,880 lbs, Peters, White & Co, Main, Bremen
PRUSS—40 cks, Roessler & H Chemical Co, Pennsylvania, Hamburg
SULPH—1,000 bgs, 223,520 lbs, Peters, White & Co, Gr Kurfurst, Bremen
462 bgs, 103,482 lbs, Heller, Hirsh & Co, Penna, Hamburg
PRUSSIAN BLUE—3 cks, Schoellkopf, H & H Co, Minnehaha, London
QUEBRACHO EXT—16,400 bgs, 1,808,103 lbs, A Klipstein & Co, Hypatia, Buenos Ayres
5,000 bgs, 551,150 lbs, A Klipstein & Co, Hypatia, Buenos Ayres
9,063 bgs, 999,014 lbs, A Klipstein & Co, Hypatia, Buenos Ayres
WOOD—1,620 logs, 913,000 lbs, Stamford Mfg Co, Hypatia, Buenos Ayres
3,228 tons, New York & Boston Dyewood Co, Hazelwood, Rosario
QUININE—76 cs, 45,850 ozs, E Levi, Rotterdam, Rotterdam
20 cs, 10,000 ozs, Tice & Lynch, St Louis, London
RAPESEED—400 bgs, 22,046 lbs, J D Nordlinger, Oscar II, Copenhagen
ROSIN—134 bbls, C E Scholes Co, Minnehaha, London
ROTTEN STONE—65 cks, 10 tons, T Van Amringe & Co, Consuelo, Hull
SAGO FLOUR—406 bgs, 55,880 lbs, L Littlejohn & Co, Indramayo, Penang
793 bgs, 111,760 lbs, D A Shaw & Co, Indramayo, Penang
410 bgs, 54,880 lbs, Haebler & Co, African Prince, Singapore
1,012 bgs, 227,593 lbs, J W Phyfe & Co, African Prince, Singapore
SATIN WHITE—42 cks, 24,374 lbs, Kuttroff, Pickhardt & Co, Minnehaha, London
SENNA—50 bls, 15,919 lbs, Parke, Davis & Co, Minnehaha, London
50 bls, 16,000 lbs, P E Anderson & Co, Minnehaha, London
25 bls, 8,000 lbs, F B Ross & Co, Victorian, Liverpool
99 bls, 29,566 lbs, Fitzsimmons & Co, Minnehaha, London

A. Klipstein & Company,

122 PEARL ST., NEW YORK.

Woolgrease & Moellen Degras
Newfoundland Cod Oil
Tanners Yolk

BRANCH HOUSES.—BOSTON, 283-285 Congress St. PHILADELPHIA, 50-52 N. Front St. CHICAGO, 136 Kinzie St. PROVIDENCE, R. I., 13 Mathewson St. HAMILTON, ONT., Catharine St. MONTREAL, 17 Lemoine St.

SHELLAC—6 cks, 2,205 lbs, G Amsinck & Co, Rotterdam, Rotterdam
50 cs, Rogers & Pyatt, Minnehaha, London
SOAP—50 cs, 2,535 lbs, G E Evans, Liguria, Genoa
SODA ASH—118 cks, 203,165 lbs, Heller & Merz Co, Victorian, Liverpool
CAUSTIC—100 dms, 70 cs, 19,600 lbs, Welch, Holme & Clark Co, Victorian, Liverpool
25 bbls, 11,002 lbs, J L & D S Riker, Victorian, Liverpool
CHLO—100 kegs, 11,200 lbs, J L & D S Riker, Victorian, Liverpool
NITRATE—60,498 bgs, 126,833 qtls, W R Grace & Co, Indiana, Iquique
NITRITE—30 cks, 25,348 lbs, Roessler & H Chem Co, Rotterdam, Rotterdam
SQUILLS—12 bgs, 2,330 lbs, Schieffelin & Co, Citta di Messina, Messina
SPONGE—23 bls, National Sponge & Chamois Co, Santiago, Nassau
50 bls, Leousi, Clonney & Co, Rotterdam. Rotterdam
11 bls, A Moses Sons & Co, Seminole, Turks Island
26 bls, Laskar & Bernstein, Majestic, Liverpool
39 bls, Leousi, Clonney & Co, Seminole. Turks Island
STRONTIA NITRATE—32 kegs, 11,568 lbs, Chemical Imp & Mfg Co, Rotterdam, Rdm
SULPHUR ORE—8,823,936 lbs, Pennsylvania Salt Mfg Co, Castle Ventry, Huelva
SUMAC—140 bgs, 22,400 lbs, Core & Herbert. Prinz Oskar, Palermo
700 bgs, 111,883 lbs, O S Janney & Co Prinz Oskar, Palermo
210 bgs, 33,600 lbs, A Klipstein & Co. Prinz Oskar, Palermo
350 bgs, 56,000 lbs, F R Leonori & Co Prinz Oskar, Palermo
EXT—35 bbls, 17,932 lbs, Geigy Aniline & Ext Co, Vaderland, Antwerp
1 keg, 56 lbs, J Campbell & Co, Victorian, Liverpool
TALC—300 bgs, 66,000 lbs, T S Todd & Co, Liguria, Genoa
5 cks, Cassella Color Co, Victorian, Liverpool
40 cks, Farb of Elberfeld Co, Vaderland, Antwerp
14 cks, C Bischoff & Co, Main, Bremen
4 cks, C Bischoff & Co, America, Antwerp
BRISTLES—70 cs, 7,700 lbs, J V A Cattus, Indramayo, Shanghai
4 cs, 842 lbs, E & H Levy, La Gascogne, Havre
55 cs, 6,050 lbs, Polack & Goldstone, Indramayo, Tientsin
10 cks, 3,135 lbs, Knauth, N & K, K Wm II, Bremen
BRONZE POWDER—6 cs, 2,833 lbs, G Meier & Co, Main, Bremen
CAMPHOR, REFINED—50 cs, 5,000 lbs, Stallman & Fulton Co, Minnehaha, London
CHEMICAL PREP—4 cks, C Bischoff & Co. Kentucky, Christianla
2 cks, C Bischoff & Co, Oscar II, Christiania
COAL TAR PREP—7 bbls, Roessler & H Chem Co, Batavia, Hamburg
COLORS—9 cs, Roessler & H Chem Co, Kaiser Wm II, Bremen
GUM CHICLE—229 bls, 21,270 lbs, Eggers & Heinlein, Coastwise, Mobile
120 bls, 21,228 lbs, J W Wilson & Co. Coastwise, Mobile
20 bgs, 3,540 lbs, American Trading Co, Seneca, Tampico
107 bgs, 13,248 lbs, F Probst & Co, Daggry, Campeche
23 bgs, 4,295 lbs, H Marquardt & Co, Seneca, Tampico
298 bls, 52,566 lbs, J W Wilson & Co, Coastwise, Belize
130 bls, 23,163 lbs, G Amsinck & Co, Coastwise, Belize
LICORICE PASTE—50 cs, 12,302 lbs, E Utard, La Gascogne, Havre
30 cs, 8,705 lbs, Argumbau & Ramee, Ulriken, Seville
MAGNESIA SULPH—300 bgs, 66,138 lbs, A Klipstein & Co, Penna, Hamburg
FERRO SILICON—87 cks, Arranmore, Antwerp
GLASS, WINDOW—75 cs, Semon, Bache & Co, Arranmore, Antwerp
11,046 cs, American Express Co, Arranmore, Antwerp
128 cs, Arranmore, Antwerp
GLUE—22 cks, American Express Co, Arranmore, Antwerp
280 pkgs, American Express Co, Corean, Glasgow
GREASE—19 bbls, Brown Bros & Co, Lancastrian, London
100 bbls, W N Proctor & Co, Cymric, Liverpool
WOOL—100 bbls, American Express Co, Arranmore, Antwerp
GUM—25 cks, Stone & Downer Co, Bohemian, Liverpool
INDIGO—31 pkgs, Baring Bros & Co, Lancastrian, Liverpool
1 pkg, Lancastrian, Liverpool
7 chts, Arnold, Hoff Co, Lancastrian, Liverpool
OIL, MEAL—190 bgs, Cymric, Liverpool
PALM—17 cks, Cymric, Liverpool
PAINT, EARTH—100 bbls, American Express Co, Cymric, Liverpool
PHOSPHATE—500 bgs, H J Baker & Co, Arranmore, Antwerp
PITCH—500 bbls, Lancastrian, London
PUMICE STONE—300 bgs, John Munroe & Co, Vincenzo Bonanno, Canneto Lipori
2 cs, 200 bgs, Vincenzo Bonnano, Canneto Lipori
SALTPETER—879 bgs, Ralli Bros, Seminole, Calcutta
SODA—6 bbls, Lancastrian, London
ASH—32 tcs, Bohemian, Liverpool
CAUSTIC—15 drs, American Express Co, Arranmore, Antwerp
SIZE—2 cks, W N Proctor & Co, Bohemian, Liverpool
STARCH, SOLUBLE—100 bgs, Alexandra, Copenhagen
SUGAR OF LEAD—10 cks, Corean, Glasgow
SULPHUR, CR—747 bgs, Linder & Meyer, Bohemian, Liverpool
TAPIOCA FLOUR—500 bgs, Bohemian, Liverpool
VARNISH—4 cks, American Express Co, Meteghan, N S
WAX, CARNAUBA—23 bgs, Cymric, Liverpool
ZINC DUST—121 cks, Alexandra, Copenhagen
WHITE—28 cks, Arranmore, Antwerp

Philadelphia Imports.

ACID, OXALIC—40 cks, A Klipstein & Co, Marquette, Antwerp
15 cks, Kuttroff, P & Co, Pallanza, Hamburg
75 cks, Pallanza, Hamburg
AMMONIA, MUR—54 cks, Westernland, Liverpool
ANILINE COLORS—167 cks, 5 cs, Berlin Aniline Wks, Pallanza, Hamburg
11 bbls, Marquette, Antwerp
SALT—192 cks, Geisenheimer & Co, Pennmanor, Rotterdam
32 cks, C Bischoff & Co, Pennmanor, Rotterdam
ARSENIC—300 cks, Schoellkopf, H & H Co, Pallanza, Hamburg
50 cks, Pallanza, Hamburg
BARIUM—40 cks, Roess & Hass Chem Co, Marquette, Antwerp
8 bbls, Kuttroff, P & Co, Marquette, Antwerp
25 bbls, V H Smith & Co, Pallanza, Hamburg
OLIVE—3 cks, Boericke & Tapfel, Pallanza, Hamburg
PALM KERNEL—584 bbls, 47 cks, Pallanza, Hamburg
OPIUM—40 cs, Pennmanor, Rotterdam
PAINT EARTH—200 bbls, J Lucas & Co, Manchester Corpn, Manchester
POTASH—100 cks, A Klipstein & Co, Pallanza, Hamburg
30 cks, 50 drs, Marquette, Antwerp
MUR—4,400 bgs, Pallanza, Hamburg
SODA ASH—14 cks, Westernland, Liverpool
CRYSTALS—84 cks, Wing & Evans, Westernland, Liverpool
NATRON—33 bbls, Marquette, Antwerp
PRUSS—25 cks, Manchester Corpn, Manchester
TAR—200 bbls, Westernland, Liverpool
VENETIAN RED—175 bbls, J Lee Smith & Co, Manchester Corpn, Manchester
WAX CERESIN—20 bgs, Pallanza, Hamburg
ZINC OXIDE—25 cks, Pennmanor, Rotterdam
25 cks, Marquette, Antwerp

Baltimore Imports.

ALUMINA SULPH—44 cks, Ohio, Rotterdam
AMMONIA MUR—53 cks, Quernmore, Liverpool
BLEACHING POWDER—162 cks, Quernmore, Liverpool
CHEMICALS—101 cks, Ohio, Rotterdam
10 cks, Artemisia, Hamburg
CHINA CLAY—910 cks, Quernmore, Liverpool
COLOR—113 cks, Ohio, Rotterdam
CORK—20 bls, Ohio, Rotterdam
FERTILIZER—625 bgs, Artemisia, Hamburg
GREASE—75 cks, Artemisia, Hamburg
WOOL—300 bbls, Artemisia, Hamburg
PEPPER—225 bgs, Tampico, Rotterdam
370 bgs, Ohio, Rotterdam
POTASH—65 cks, Artemisia, Hamburg
MUR—4,000 bgs, Artemisia, Hamburg
SEED CARAWAY—150 bgs, Ohio, Rotterdam

Newport News Imports.

CHINA CLAY—250 casks, Jean Freese, Kanawha, Liverpool
200 casks, Moore & Munger, Kanawha. Liverpool
200 casks, Wheelwright Filler & Mfg Co, Kanawha, Liverpool
1,068 casks, Morey & Co, Kanawha, Liverpool
POTASH CARBONATE—27 casks, R & H Chem Co, Pisa, Hamburg

New Orleans Imports.

ARGOLS—54 cks, Barbadian, Liverpool
FULLER'S EARTH—200 sks, Barbadian, Liverpool
GLASS, WINDOW—223 bxs, Barbadian, Liverpool
VENETIAN RED—100 bbls, Barbadian, Liverpool

San Francisco Imports.

GLUE—120 pkgs, 206 bgs, Sonoma, Sydney
OIL, CAKE—50 sks, Thannhauser & Co, City of Panama, San Blas
PITCH—30 cks, Sonoma, Auckland
SHEEP DIP—58 cs, Kentucky Tob Co, Sonoma, Auckland
TAR—40 bbls, Sonoma, Auckland

CREAM OF TARTAR. TARTARIC ACID.

GUARANTEED 99—100 Per Cent. Pure.

TARTAR CHEMICAL COMPANY, 92 William Street, NEW YORK.

TAPIOCA FLOUR—727 bgs, 112,100 lbs, Winter & Smillie, Indramayo, Penang
363 bgs, 55,810 lbs, R Crooks & Co, Indramayo, Penang
249 bgs, 56,000 lbs, Haebler & Co, African Prince, Singapore
880 bgs, 190,400 lbs, C Morningstar & Co. Victorian, Liverpool
699 bgs, 111,760 lbs, J W Phyfe & Co, African Prince, Singapore
TOLUIDINE—6 cks, 6,600 lbs, Heller & Merz Co, America, Antwerp
4 dms, 4,605 lbs, Read, Holliday & Sons, Consuelo, Hull
TURMERIO—399 bgs, J Kissock & Co, Indramayo, Singapore
TURPENTINE VENICE—10 bbls, 41,551 lbs, Stallman & Fulton Co, Minnehaha, London
VANILLA BEANS—14 cs, 2,862 lbs, H Marquardt & Co, Seneca, Tampico
1 cs, Dodge & Olcott, New York, London
15 cs, 3,165 lbs, E N Tibbals & Co, Seneca, Tampico
20 cs, Dodge & Olcott, La Lorraine, Havre
25 cs, 4,357 lbs, E N Tibbals & Co, Yucatan, Vera Cruz
5 cs, 985 lbs, American Trading Co, Yucatan, Vera Cruz
VARNISH—102 dms, 3 cs, 1,335 gals, Pomeroy & Fischer, Minnehaha, London
VENETIAN RED—181 bbls, J Lee Smith & Co, Victorian, Liverpool
WAX, BEES—2 bbls, O C Kanzow, Alene. Miragoane
4 bbls, 910 lbs, J E Herrara, Seminole, Sto Domingo
1 cs, H Struller, Flandria, Pt de Paix
CARNAUBA—27 bgs, 4,582 lbs, Winter & Smillie, Oceanic, Liverpool
59 bgs, 10,938 lbs, Strohmeyer & Arpe Co, Pennsylvania, Hamburg
MINERAL—143 bgs, 23,874 lbs, Smith & Nichols, Batavia, Hamburg
146 bgs, 24,488 lbs, Smith & Nichols, Batavia, Hamburg
159 bgs, 1,790 lbs, Smith & Nichols, Pennsylvania, Hamburg
PARAFFINE—135 bgs, Isaacs, Vought & Co, Carthaginian, Glasgow
JAPAN—200 cs, 42,423 lbs, Stallman & Fulton Co, Indramayo, Kobe
VEGETABLE—65 bgs, 11,005 lbs, Smith & Nichols, Batavia, Hamburg
30 bgs, 6,600 lbs, Strohmeyer & Arpe Co, Pennsylvania, Hamburg
WHITE LEAD—60 kegs, 20 bbls, 15,680 lbs, G A & E Meyer, Minnehaha, London
ZINC OXIDE—12 cks, 5,291 lbs, Kraemer & Foster, Blucher, Hamburg
55 cks, 24,251 lbs, Gabriel & Schall, Rotterdam, Rotterdam
CHLO—31 cks, Berlin Aniline Works, Pennsylvania, Hamburg
WHITE—29 bbls, J A & W Bird & Co, Rotterdam, Rotterdam
76 cs, J A & W Bird & Co, Rotterdam, Rotterdam

Warehoused.

ALBUMEN BLOOD—5 cks, 2,403 lbs, C Morningstar & Co, Penna, Hamburg
ALBUMEN EGG—39 cs, 8,334 lbs, A Klipstein & Co, Indramayo, Shanghai
ALCOHOL—4 bbls, 181 gals, F O Boyd, Batavia, Hamburg
ANILINE COLORS—7 cks, C Bischoff & Co G Kurfurst, Bremen
OLEO STEARINE—100 bgs, E S Kuh & Co, Oscar II, Copenhagen
OPIUM—15 cs, 1,625 lbs, McKesson & Robbins, New York, Southampton
OIL, CODLIVER—15 bbls, 450 gals, Stallman & Fulton Co, Penna, Hamburg
SODA CAUSTIC—100 dms, 45,600 lbs, J L & D S Riker, Victorian, Liverpool
SPONGE—44 bls, A Isaacs & Co, Monterey, Havana

Withdrawals from Bond.

Alcohol, puns	3
Aniline colors, cks	292
Aniline colors, cs	18
Aniline colors, kegs	15
Antimony sulph, cks	1
Bristles, cs	127
Bristles, cks	4
Bronze powder, cs	10
Chemical prep, cs	12
Chillies, bls	5
Colors, cks	15
Cocoa butter, bgs	179
Corks, bls	79
Cumarin, cs	2
Dextrine, bgs	100
Gelatine, cs	10
Glue, bls	112
Glue, cks	30
Glue, bbls	25
Glue, bgs	100
Gum chicle, bgs	21
Gum chicle, bls	125
Glycerine, dms	25
Licorice paste, cs	25
Medical prep, cs	9
Mica, cs	7
Oil, castor, bbls	1
Oil, codliver, bbls	169
Oil, peppermint, cs	37
Opium, cs	56
Sage leaves, bls	6
Vanillin, cs	1
White lead, cs	70

Boston Imports.

ALGORABILLA—60 bgs, Bohemian, Liverpool
ALUM—4 cks, American Express Co, Cymric, Liverpool
ANILINE COLOR—7 bbls, Arranmore, Antwerp
SALT—79 cks, C Bischoff & Co, Arranmore Antwerp
128 cks, Arranmore, Antwerp
BAUXITE, RED—2,345,000 kilos, Vincenzo Bonanno, San Rafael (Cannes)
WHITE—700,000 kilos, Vincenzo Bonanno, San Rafael
BLUE—50 cs, Jas A Hayes & Co, Arranmore, Antwerp
BRIMSTONE ROLL—67 bbls, Arnold, Hoff Co, Vincenzo Bonanno, Messina
BRISTLES—1 ck, Lancastrian, London
CARAWAY SEED—50 bgs, Arranmore, Antwerp
CHALK—500 tons, Lancastrian, London
CHEMICALS—50 cks, Roessler & Haslacher, Alexandra, Copenhagen
CLAY—45 cks, Kuttroff, Pickhardt & Co, Lancastrian, London
COCOA BUTTER—28 bls, Arranmore, Antwerp
CREAM TARTAR—2 cks, American Express Co, Cymric, Liverpool
CREOSOTE—176 cks, Bohemian, Liverpool
DEXTRINE—100 bgs, Alexandra, Copenhagen
25 cks, Kuttroff, P & Co, Pallanza, Hamburg
BARYTES—150 bgs, Steelman & Archer, Marquette, Antwerp
BENZOLE—15 drs, Manchester Corpn, Manchester
BLANC FIXE—38 cks, Pallanza, Hamburg
BLEACH—42 cks, Arnold, Hoff & Co, Manchester Corpn, Manchester
264 cks, J L & D S Riker, Westernland, Liverpool
CLAY—200 cks, Westernland, Liverpool
200 cks, Marquette, Antwerp
CHINA—60 sks, Kuttroff, P & Co, Pallanza, Hamburg
498 cks, 500 cks, Manchester Corpn, Manchester
200 cks, Jerkins, Goodwin & Co, Westernland, Liverpool
COCOA BUTTER—63 bls, Pallanza, Hamburg
39 bls, Marquette, Antwerp
COLORS, SWISS—15 bbls, A Klipstein & Co, Marquette, Antwerp
CORK WASTE—403 bls, Armstrong Cook Co, Pallanza, Hamburg
WOOD—40 bls, Pennmanor, Rotterdam
DYESTUFF—19 bbls, Andreykovicz & Dunk, Marquette, Antwerp
EARTH GREEN—150 bgs, Jno, Lucas & Co, Pennmanor, Rotterdam
FERTILIZER—625 bgs, Pallanza, Hamburg
GINGER—79 bgs, Pallanza, Hamburg
GLYCERINE—40 drs, Colby & Co, Westernland, Liverpool
20 drs, Pennmanor, Rotterdam
LICORICE ROOT—18 cs, Steelman & Archer, Marquette, Antwerp
MANGANESE—35 cks, J Meyer & Son, Pennmanor, Rotterdam
101 tons, Crocker Bros, Westernland, Liverpool
MEDICAL ROOTS—30 bls, Smith, K & F Co, Pallanza, Hamburg
19 bbls, J Wyeth & Bro, Pallanza, Hamburg
MICA—32 cks, Clan Mac Millan, Calcutta
OIL COD LIVER—35 bbls, 10 cs, Shoemaker & Busch, Pallanza, Hamburg

EXPORTS FROM NEW YORK.

Week ending Oct. 12.

ACID—23 drs, $322, Seneca, Tampico
ACETIC—3 cbys, $20, Finance, Colon
2 cbys, $20, Seguranca, Havana
CARB—3 bbls, $30, Santiago, Cuba
HYDROCHLO—6 cyls, $24, Santiago, Cuba
MUR—25 cbys, Cubana, Cuba
20 cbys, $68, Ponce, Pto Rico
15 cbys, $20, Monterey, Havana
NITRIC—6 cbys, $50, Finance, Colon
2 cbys, $23, Santiago, Cuba
STEARIC—15 bgs, $259, Allegheny, Pt Limon
SULPH—2 cs, 4 cbys, $19, Finance, Colon
25 cbys, Cubana, Cuba
2 drs, $47, Seguranca, Havana
30 cs, $87, Allegheny, Savanilla
5 cbys, $11, Monterey, Havana
ALCOHOL, WOOD—30 bbls, $948, Advance, Colon
ALUM—2 bbls, $14, Finance, Colon
AMMONIA—2 cyls, $89, Grenada, Grenada
2 bbls, $79, Monterey, Havana
ANHYDR—10 cyls, $256, Seguranca, Havana
ASPHALTUM—10 bbls, $29, Caronia, Liverpool
BALSAM—1 bbl, $190, Bovic, Liverpool
6 cs, $187, Konig Albert, Genoa
BARK EXT—60 bbls, $935, Calderon, Manchester
BLEACH—5 bbls, 17 cs, $238, Star of Ireland. Sydney
BONES—144 bgs, $804, Vaderland, Antwerp
BONE BLACK—25 bbls, $383, Minnehaha, London
BORAX—2 bbls, $69, Finance, Colon
BROMIDE—16 kgs, 1,600 lbs, $267, Grosser Kurfurst, Bremen
CALCIUM CARB—400 drs, $1,012. Cubana. Cuba
200 drs, $572, Curacao, Curacao
CANDLES—10 cs, $61, Finance, Colon
4 cs, $22, Marconi, Colon
10 cs, $115, Fontabelle, Demerara
10 cs, $47, Cametense, Maranham
5 cs, $59. Alene, Buena Ventura
5 bdls, $30, Alene, Colon
117 cs, $266, Santiago, Cuba
4 bdls, $35, Advance, Colon

HEADQUARTERS FOR

Heavy and Fine Chemicals,
Drugs, Oils,
Minerals,
Etc.

JAVA QUININE.

IMPORTERS—Commission Merchants—EXPORTERS

FUERST BROS. & CO.

2 Stone St. NEW YORK. & 17 Bridge St.

A FULL LINE OF VARNISH DRYERS

CORRESPONDENCE SOLICITED.

1,625 cs, 25 bdls, $3,055, Ponce, Pto Rico
20 cs, $40, Maracaibo, Maracaibo
CARBIDE SILICON—4 kgs, $75, Bovic, Liverpool
CARBON BLACK—50 bbls, $450, Ryndam, Rotterdam
150 bbls, $1,350, Grosser Kurfurst, Bremen
175 bbls, 150 cs, $3,563, La Lorraine, Havre
450 bbls, $3,350, Batavia, Hamburg
CASCARA—594 bgs, $1,483, Minnehaha, London
CASSIA—5 bls, $30, Hindustan, Rosario
15 bls, $73, Hindustan, Montevideo
6 bls, $15, Camertense, Maranham
2 cs, $14, Grenada, Trinidad
2 bls, $9, Ponce, Porto Rico
3 bls, 10 bgs, $88, Maracaibo, Maracaibo
CHEMICAL SALTS—10 cs, $277, Vaderland, Antwerp
CINNAMON—2 bls, $30, Daggry, Campeche
2 cs, $113, Cametense, Maraham
20 cs, $56, Cametense, Ceara
50 bls, $371, Seguranca, Havana
CLAY—300 bgs, $400, Blucher, Hamburg
150 bgs, $137, Vaderland, Antwerp
890 bgs, $710, Konig Albert, Genoa
210 bgs, $100, Calderon, Manchester
CLOVES—2 bls, $39, Ponce, Porto Rico
2 bls, $38, Fontabelle, Demerara
2 bgs, $36, Allegheny, Savanilla
COLOR—50 cs, 68 kgs, $458, Star of Ireland, Sydney
20 cs, 2 kgs, $40, Foohng Suey, Honolulu
COTTONSEED—400 bgs, $800, Caronia, Liverpool
9 sks, $65, Finance, Colon
6 bgs, $25, La Lorraine, Havre
MEAL—12 bgs, 1,200 lbs, $17, Nordray, Porto Rico
CORKS—2 bls, $176, Seneca, Tampico
4 bgs, $40, Allegheny, Savanilla
CUMMIN SEED—8 bls, $80, Alene, Burnaventuro
DYEWOOD EXT—100 bbls, $3,412, Caronia, Liverpool
20 bxs, $367, Konig Albert, Genoa
65 bbls, 110 bxs, $1,837, Vaderland, Antwerp
220 cs, 10 bbls, $1,120, Batavia, Hamburg
FERTILIZER—800 bgs, $1,593, Cubana, Cuba
400 bgs, $800, Seneca, Tampico
1,000 bgs, $3,500, Seguranca, Havana
137 bbls, $755, Santiago, Cuba
1,000 bgs, $3,843, Ponce, Porto Rico
10 bbls, $37, Monterey, Havana
FLAXSEED—12,039 bus, $14,450, Ryndam, Rotterdam
29,055 bus, $33,400, Charles Tiberghein, Dunkirk
20,884 bus, $24,000, Vaderland, Antwerp
GLASS, WINDOW—20 cs, $66, Santiago, Cuba
38 cs, $526, Foohng Suey, Kahului
GLUCOSE—10 bbls, $55, Caronia, Liverpool
10 bbls, $148, Indrapura, Manila
40 bbls, $560, Indrapura, Yokohama
450 bbls, $8,348, Brooklyn City, Bristol
60 bbls, $745, Brooklyn City, Newport
65 bbls, $845, Hindustan, Buenos Aires
300 bbls, $3,000, Carthaginia, Glasgow
31 bbls, $431, Seguranca, Havana
60 bbls, $780, New York, Southampton
350 bbls, $4,375, Calderon, Manchester
900 bbls, $9,967, Minnehaha, London
10 bbls, $158, Kentucky, Christiania
GLUE—2 cs, $70, Bovic, Liverpool
10 cks, $275, Grosser Kurfurst, Bremen
8 bbls, $301, Seguranca, Havana
135 bbls, $3,996, Columbia, Glasgow
2 cs, $50, Kentucky, Copenhagen
3 bbls, $98, Monterey, Havana
GLYCERINE—6 drs, $720, Seneca, Tampico
GRAPE SUGAR—500 bgs, 56,000 lbs, $650, Caronia, Liverpool
1,000 bgs, 112,000 lbs, $1,100, Brooklyn City, Bristol
500 bgs, 56,000 lbs, $1,100, Bristol City, Bristol
1,500 bgs, 168,000 lbs, $3,200, Minnehaha, London
GRAPHITE—2 bbls, $28, La Lorraine, Havre
10 bbls, $312, Vaderland, Antwerp
GREASE BONE—34 tcs, $390, Konig Albert, Naples
10 tcs, $120, Konig Albert, Genoa
SOAP—75 tcs, $1,280, Vaderland, Antwerp
LUB—28 cs, 315 bbls, $3,715, Caronia, Liverpool
10 bbls, $102, Manuel Calvo, Bilboa
8 bbls, $89, Manuel Calvo, Seville
89 bbls, $1,038, Calderon, Manchester
600 bbls, 50 cs, $3,461, Bovic, Liverpool
50 bbls, $825, Liguria, Genoa
22 bbls, $307, Liguria, Odessa
50 cs, $75, Indrapura, Yokohama
30 bbls, 300 cs, $845, Indrapura, Manilla
74 bbls, 100 cs, $119, Indrapura, Kobe
25 bbls, 25 cs, $217, Grosser Kurfurst, Bombay
30 bbls, $492, Grosser Kurfurst, Minden
628 bbls, $8,132, Madonna, Marseilles
50 bbls, $805, Hindustan, Rosario
48 cs, $156, Star of Ireland, Sydney
5 cs, $68, Seneca, Tampico
10 bbls, $100, Gowanburn, Sydney
5 bbls, $108, Santiago, Cuba
55 cs, $44, Allegheny, Kingston
6 cs, $20, Advance, Colon
94 bbls, $920, Minnehaha, London
20 cs, 10 bbls, $129, Kentucky, Copenhagen
20 cs, 6 bbls, $50, Kentucky, Christiania
77 cs, 15 kgs, 10 bbls, $303, Foohng Suey, Honolulu
GUMARABIC—2 bls, $63, Allegheny, Savanilla
LAMP BLACK—4 cs, $10, Fontabelle, St Croix
LEAD—1,055 pigs, 112,036 lbs, $3,250, Perugia, Leghorn
1,057 pigs, 112,040 lbs, $3,250, Grosser Kurfurst, Bremen
1,055 pigs, 112,053 lbs, $3,250, Grosser Kurfurst, St Petersburg
2,107 pigs, 224,001 lbs, $6,700, Carthaginia, Glasgow
1,799 pigs, 190,405 lbs, $5,780, Bristol City, Bristol
ACETATE—6 kgs, $57, Alene, Colon
LIME ACETATE—1,071 bgs, 148,694 lbs, $4,200, Ryndam, Rotterdam
7,396 bgs, 1,044,172 lbs, $37,500, Batavia, Hamburg
LINSEED CAKE—2,000 bgs, 672,000 lbs, $9,600, Vaderland, Antwerp
LOGWOOD EXTR—10 bbls, $323, Manuel Calvo, Barcelona
40 cs, $140, Hindustan, Montevideo
MAGNESIA—50 bgs, Indrapura, Manila
OIL CAKE—440 bgs, 114,400 lbs, $1,584, Perugia, Marseilles
3,000 bgs, 985,601 lbs, $10,800, Ryndam, Rotterdam
1,317 bgs, 334,451 lbs, $2,634, La Lorraine, Havre
3,714 bgs, 1,159,137 lbs, $15,570, Vaderland, Antwerp
CAKE, CORN—645 bgs, 166,829 lbs, $2,310, Perugia, Marseilles
COD—20 cks, $340, Gowanburn, Melbourne
CODLIVER—4 bbls, New York, Southampton
47 bbls, $1,034, Seneca, Tampico
CORDAGE—30 bbls, $169, Calderon, Manchester
200 bbls, $1,017, Monterey, Havana
CORN—620 bbls, $8,945, Caronia, Liverpool
1,810 bbls, $16,701, Vaderland, Antwerp

COTTONSEED—100 bbls, $1,500, Konig Albert, Genoa
771 bbls, $12,356, Perugia, Marseilles
149 bbls, $2,700, Perugia, Leghorn
20 cs, $65, Baker, Jamaica
5 bbls, $73, Tennyson, Rio Janeiro
15 bbls, $285, Tennyson, Bahia
163 cs, 75 bbls, $2,094, Tennyson, Santos
40 bbls, $592, Bovic, Liverpool
1,100 bbls, $16,500, Ryndam, Rotterdam
50 bbls, $900, Liguria, Pt Said
45 bbls, $775, Liguria, Alexandria
104 bbls, $1,664, Liguria, Trieste
5 cs, $13, Finance, Colon
4 cs, $15, Daggry, Campeche
100 bbls, $1,630, La Lorraine, Havre
50 bbls, $750, Grosser Kurfurst, Bremen
2,734 bbls, $44,167, Madonna, Marseilles
5 bbls, $79, Hindustan, Buenos Aires
50 cs, 500 bbls, $996, Hindustan, Montevedio
80 cs, 10 bbls, $405, Marconi, Colon
45 bbls, $683, Fontabelle, Demerara
15 bbls, $256, Fontabelle, Barbadoes
145 bbls, 5 cs, $2,022, Fontabelle, St Croix
6 bbls, $83, Fontabelle, St Vincent
14 drs, $565, Star of Ireland, Melbourne
200 bbls, $2,250, Carthaginia, Glasgow
45 cs, 3 bbls, $256, Alene, Colon
5 cs, $10, Alene, Jamaica
110 bbls, 30 cs, $2,141, Seguranca, Havana
1,200 bbls, $18,000, Vaderland, Antwerp
5 cs, $19, Grenada, Ciudad Bolivar
1 bbl, 20 cs, $85, Grenada, Grenada
10 cs, 2 bbls, $71, Grenada, Trinidad
50 bbls, $680, Manuel Calvo, Tangier
900 bbls, $13,625, Batavia, Hamburg
150 bbls, $2,775, Konig Albert, Egypt
100 bbls, $1,875, Konig Albert, Gibraltar
10 cs, $37, Allegheny, Jamaica
42 bbls, 128 cs, $981, Allegheny, Kingston
50 bbls, $806, Georgia, Oran
25 bbls, $371, Bristol City, Cardiff
200 bbls, $2,900, Calderon, Manchester
380 cs, $691, Advance, Colon
50 cs, $300, Ponce, Pto Rico
75 bbls, $1,260, Minnehaha, London
25 bbls, $460, Kentucky, Stettin
CREOSOTE—190 drs, $811, Seguranca, Havana
CYL—15 bbls, $95, Daggry, Progreso
ESSL—19 cs, $966, Madonna, Marseilles
3 cs, $346, Seguranca, Havana
60 cs, $4,369, Batavia, Hamburg
16 cs, $1,123, Konig Albert, Genoa
37 cs, $3,142, Minnehaha, London
FUSEL—2 bbls, $85, Minnehaha, London
JUTE—120 bbls, $666, Grosser Kurfurst, Bremen
LARD—10 bbls, $315, Tennyson, Rio Janeiro
4 cs, $32, Finance, Colon
1,000 cs, Indrapara, Manila
15 bbls, $375, La Lorraine, Havre
20 cs, $127, Star of Ireland, Melbourne
5 cs, $31, Grenada, Trindad
15 bbls, $490, Minnehaha, London
LINS—5 cs, $48, Finance, Colon
4 bbls, $106, Fontabelle, St Croix
4 cs, $28, Grenada, Ciudad Bolivia
2 bbls, $17, Santiago, Cuba
10 drs, $40, Allegheny, Savanilla
3 cs, $19, Advance, Colon
12 bbls, 25 cs, $441, Ponce, Pto Rico
10 cs, $59, Maracaibo, Maracaibo
4 bbls, 8 cs, $83, Monterey, Havana
LUB—5,000 gls, $701, Manuel Calvo, Barcelona
61,000 gls, $6,130, Perugia, Marseilles
83,000 gls, $13,049, Caronia, Liverpool
1,500 gls, $224, Kaiser Wilhelm, Bremen
5,050 gls, $575, Tennyson, Rio Janeiro
250 gls, $41, Rosalind, Halifax
250 gls, $33, Rosalind, St John
41,900 gls, $4,275, Bovic, Liverpool
80,250 gls, $16,378, Liguria, Genoa
2,500 gls, $322, Liguria, Odessa
175,770 gls, $18,373, Ryndam, Rotterdam
1,500 gls, $152, Ryndam, Mannheim
1,000 gls, $89, Finance, Colon
950 gls, $392, Indrapura, Manila
30,000 gls, $3,600, Indrapura, Singapore
71,700 gls, $9,681, Indrapura, Yokohama
55,000 gls, $5,872, Indrapura, Kobe
61,000 gls, $6,100, Brooklyn City, Bristol
5,500 gls, $550, Brooklyn City, Cardiff
11,000 gls, $1,100, Brooklyn City, Newport
3,000 gls, $300, Brooklyn City, Swansea
27,700 gls, $2,855, La Lorraine, Havre
17,000 gls, $2,272, Grosser Kurfurst, Bombay
750 gls, $186, Grosser Kurfurst, Calcutta
1,500 gls, $153, Grosser Kurfurst, Bremen
1,500 gls, $448, Grosser Kurfurst, Colombo
1,500 gls, $225, Grosser Kurfurst, Hanover
200 gls, $45, Hindustan, Montevideo
34,750 gls, $3,836, Hindustan, Buenos Ayres
5,000 gls, $775, Hindustan, Rosaria
6,250 gls, $2,100, Mandonna, Marseilles
2,210 gls, $311, Star of Ireland, Auckland
8,330 gls, $1,500, Star of Ireland, Wellington
9,200 gls, $1,522, Star of Ireland, Sydney
5,050 gls, $680, Star of Ireland, Dunedin
1,600 gls, $160, Star of Ireland, Lyttleton
2,250 gls, $253, Star of Ireland, Melbourne
550 gls, $25, Cametense, Para
70,190 gls, $5,380, Canova, Rosario
146,050 gls, $14,605, Canova, Buenos Ayres
1,000 gls, $202, Alene, Colon
1,000 gls, $158, Alene, Tampico
10,650 gls, $2,122, Seguranca, Havana
5,000 gls, $375, Patria, Dunkirk
22,900 gls, $2,240, Gowanburn, Melbourne
12,350 gls, $1,335, Gowanburn, Sydney
8,200 gls, $820, Gowanburn, Sydney
8,200 gls, $820, Gowanburn, Adelaide
8,900 gls, $1,279, Vaderland, Antwerp
114,750 gls, $12,213, Columbia, Glasgow
77,400 gls, $7,795, Batavia, Hamburg
4,850 gls, $1,018, Santiago, Cuba
5,000 gls, $444, Konig Albert, Genoa
3,200 gls, $775, Allegheny, Kingston
500 gls, $109, Allegheny, Savanilla
750 gls, $100, Bristol City, Avonmouth
65,000 gls, $6,500, Narragansett, London
208,550 gls, $20,740, Calderon, Manchester
30 gls, $12, Advance, Colon
680 gls, $144, Ponce, Porto Rico
36,550 gls, 4,334, Minnehaha, London
1,600 gls, $720, Maracaibo, Curacao
500 gls, $97, Maracaibo, Maracaibo
15,670 gls, $2,659, Monterey, Havana
3,000 gls, $457, Kentucky, Stettin
3,000 gls, $306, Kentucky, Malmo
8,550 gls, $1,148, Kentucky, Stockholm
3,700 gls, $617, Kentucky, Copenhagen
500 gls, $72, Kentucky, Bergen
72,750 gls, $16,920, Kentucky, St Petersburg
1,900 gls, $298, Kentucky, Christiania
7,800 gls, $1,660, Foohug Suey, Honolulu
1,000 gls, $206, Cuzco, Callao
MEAL—50 bgs, 6,250 lbs, $101, Fontabelle, St Croix
25 bgs, 3,125 lbs, $49, Fontabelle, Demerara
20 bgs, 10 bbls, 4,100 lbs, $71, Grenada, Grenada
790 bgs, 6 bbls, 100,300 lbs, $1,559, Grenada Trinidad
400 bgs, 80,000 lbs, $734, Grenada, Pt of Spain
30 bgs, 3,750 lbs, $59, Grenada, San Fernando

MINERAL COLZA—100 bbls, $500, Brooklyn City, Bristol
80 bbls, $400, Brooklyn City, Cardiff
125 bbls, $625, Brooklyn City, Newport
30 bbls, $150, Brooklyn City, Swansea
25 bbls, $125, Star of Ireland, Dunedin
25 bbls, $125, Star of Ireland, Wellington
14 bbls, $70, Star of Ireland, Auckland
21 bbls, $105, Star of Ireland, Lyttleton
25 bbls, $125, Canova, Buenos Ayres
16 bbls, $18, Gowanburn, Sydney
50 bbls, $250, Gowanburn, Adelaide
100 bbls, $500, Calderon, Manchester
MYRBANE—5 cs, $20, Fontabelle, Georgetown
NEATSFOOT—4 bbls, $60, Monterey, Havana
OLEO—645 tcs, $25,729, Batavia, Hamburg
60 tcs, $1,900, Caronia, Liverpool
100 tcs, $3,913, Rosalind, St John
30 tcs, $950, Liguria, Genoa
25 tcs, $700, Liguria, Constantinople
2,450 tcs, $83,912, Ryndam, Rotterdam
50 tcs, $1,750, Grosser Kurfurst, Bremen
510 tcs, $22,464, Vaderland, Antwerp
90 tcs, $3,650, Columbia, Glasgow
50 tcs, 25 bbls, $2,220, Lucania, Liverpool
75 tcs, $2,200, Konig Albert, Genoa
PEPP—37 cs, $4,366, Bovic, Liverpool
2 cs, $142, Hindustan, Rosario
5 cs, $354, Star of Ireland, Sydney
15 cs, $908, Batavia, Hamburg
49 cs, $4,460, Minnehaha, London
RED—20 bbls, $178, Cuzco, Callao
ROSIN—20 cs, $58, Indrapura, Yokohama
SEWING MACHINE—5 cs, $20, Tennyson, Bahia
75 cs, 1 bbl, $277, Bovic, Liverpool
6 cs, $37, Finance, Colon
6 cs, $82, Indrapura, Manila
4 cs, $14, Star of Ireland, Auckland
18 bbls, $315, Star of Ireland, Dunedin
3 cs, $26, Star of Ireland, Napier
4 cs, $11, Alene, Colon
VITRIOL—10 drs, $166, Cubana, Cuba
WINTERGREEN—10 cs, $360, Minnehaha, London
WOOD—5 bbls, $123, Rosalind, Halifax
OLEOMARGARINE—25 tcs, $680, Caronia, Liverpool
3,189 tcs, $99,295, Ryndam, Rotterdam
140 tcs, $5,616, Batavia, Hamburg
35 tcs, $1,075, Kentucky, Bergen
280 tcs, $8,600, Kentucky, Malmo
70 tcs, $2,665, Kentucky, Christianla
STOCK—100 tcs, $3,700, Batavia, Hamburg
35 tcs, $1,250, Kentucky, Christiania
OPIUM—13 cs, $4,150, Lucania, Liverpool
PAINT—11 kgs, 1 cs, $59, Advance, Colon
5 bbls, $600, Calderon, Manchester
14 bbls, 5 cs, $624, Monterey, Havana
4 cs, $61, Rosalind, St John
15 bbls, $33, Foohng Suey, Honolulu
4 bbls, $48, Bovic, Liverpool
2 cs, $14, Ryndam, Rotterdam
22 cs, 5 bbls, $619, Finance, Colon
10 cs, $140, Indrapura, Kobe
50 cs, $675, Indrapura, Yokohama
89 pkgs, $526, Indrapura, Manila
50 cs, Indrapura, Manila
50 cs, $420, Cuzco, Cuba
83 cs, $1,084, Hindustan, Rosario
5 kgs, 2 cs, $25, Fontabelle, St Croix
56 cs, $466, Star of Ireland, Auckland
14 cs, $511, Star of Ireland, Auckland
60 cs, 6 bbls, $3,295, Star of Ireland Sydney
340 cs, $636, Star of Ireland, Melbourne
2 cs, $90, Star of Ireland, Pt Chalmers
2 bbls, 2 cs, $71, Seneca, Tampico
9 cs, $490, Seguranca, Havana
39 cs, $314, Gowanburn, Rockhampton
75 cs, $698, Gowanburn, Adelaide
67 cs, $570, Gowanburn, Manyborough
99 cs, $812, Gowanburn, Fremantle
36 cs, $300, Gowanburn, Townsville
4 cs, $40, Columbia, Glasgow
4 cs, $57, Vaderland, Antwerp
25 cs, $410, Manuel Calvo, Barcelona
5 cs, $50, Batavia, Hamburg
65 bbls, 5 cs, $2,968, Santiago, Cuba
15 cs, $250, Konig Albert, Gibraltar
5 cs, $35, Allegheny, Savanilla
3 cs, $15, Allegheny, Kingston
15 bbls, $160, Narragansett, London
PARIS GREEN—10 cs, $45, Fontabelle, Barbadoes
2 cs, $43, Star of Ireland, Auckland
9 cs, $84, Allegheny, Cartagena
123 kgs, 105 cs, 10 bbls, $1,509, Ponce, Pto Rico
120 kgs, Ponce, Pto Rico
7 bbls, 22 kgs, $233, Maracaibo, Maracaibo
PEPPER—2 bgs, $26, Baker, Jamaica
2 bgs, $20, Finance, Colon
10 bgs, $140, Fontabelle, Demerara
22 bgs, $333, Cametense, Maranham
20 bgs, $319, Cametense, Ceara
13 bgs, $179, Seguranca, Havana
17 bgs, $207, Ponce, Pto Rico
2 bgs, $23, Maracaibo, Maracaibo
PETROLEUM JELLY—18 cs, $379, Bovic, Liverpool
5 bbls, $75, Oceanic, Liverpool
20 cs, $447, Ryndam, Rotterdam
25 cs, $342, Hindustan, Buenos Ayres
3 cs, $39, Star of Ireland, Wellington
3 cs, $35, Star of Ireland, Auckland
90 bbls, 30 cs, $2,640, Batavia, Hamburg
10 cs, $171, Lucania, Liverpool
2 bdls, $27, Allegheny, Kingston
6 bbls, 22 cs, $450, Calderon, Manchester
242 cs, $4,169, Minnehaha, London
PIMENTO—150 bgs, $1,358, Georgia, Venice
PITCH—200 bbls, $310, Indrapura, Manila
100 bbls, $260, Fontabelle, Demerara
6 bbls, Grenada, Trinidad
3 bbls, $10, Advance, Colon
15 bbls, $40, Foohuy Suey, Honolulu
PLUMBAGO—1 kg, 22 cs, $137, Oceanic, Liverpool
2 cs, $13, Bovic, Liverpool
4 cs, $59, Indrapura, Yokohama
2 bbls, $34, Cubana, Cuba
2 cs, $19, Star of Ireland, Lyttleton
20 bbls, $398, Seguranca, Havana
40 cs, 10 bbls, 5 kgs, $741, New York, Southampton
25 bbls, Foohng Suey, Honolulu
POTASH—2 cs, 446 lbs, $24, Seguranca, Havana
BROMIDE—50 cs, $1,245, Indrapura, Yokohama
CHLORATE—20 cs, 1,900 lbs, $300, Fontabelle, Georgetown
CYANIDE—100 cs, 11,200 lbs, $1,876, Seneca, Tampico
9 cs, 1,008 lbs, $101, Alene, Colon
NITR—10 bbls, $217, Monterey, Havana
RED LEAD—3 kgs, $19, Advance, Colon
ROSIN—175 bbls, $1,481, Tennyson, Bahia
240 bbls, $2,070, Indrapura, Kobe
25 bbls, $219, Star of Ireland, Lyttleton
100 bbls, $912, Star of Ireland, Dunedin
800 bbls, $3,000, Carthaginia, Glasgow
60 bbls, $188, Camentense, Para
60 bbls, $534, Camentense, Maraham
37 bbls, $300, Camentense, Ceara
8 bbls, $88, Seneca, Tampico
500 bbls, $4,318, Golden Rod, Bahia
205 bbls, $1,520, Allegheny, Savanilla
3 bbls, $24, Allegheny, Kingston

10 bgs, $45, Allegheny, Cartagena
292 bbls, $1,265, Calderon, Manchester
30 bbls, $165, Minnehaha, London
50 bbls, $456, Cuzco, Callao
5 bbls, $36, Foohug Cuzco, Honolulu
SALAMMONIAC—53 bbls, $656, Caronia, Liverpool
SARSAPARILLA—8 bls, $424, Perugia, Marseilles
2 bls, $47, Minnehaha, London
SHEEP DIP—41 bbls, $2,225, Kaiser Wilhelm der Grosse, Bremen
800 bgs, $1,944, Cuzco, Punta Arenas
SOAP—300 cs, $297, Tennyson, Rio Janeiro
260 cs, $500, Rosalind, St John
162 cs, 100 bbls, $6,961, Bovic, Liverpool
291 cs, 150 bbls, $1,524, Finance, Colon
120 cs, $1,273, Indrapura, Kobe
14 cs, $375, Indrapura, Yokohama
500 cs, $2,000, Brooklyn City, Bristol
249 cs, $1,540, Verona, Hayti
25 cs, $600, Hindustan, Buenos Ayres
750 cs, $835, Marconi, Colon
46 cs, $81, Fontabelle, St Vincent
350 cs, $600, Fontabelle, Barbadoes
9 cs, $595, Star of Ireland, Lyttleton
103 cs, $520, Star of Ireland, Wellington
100 cs, $—, Star of Ireland, Wellington
40 cs, $5,000, Canova, Buenos Ayres
400 cs, $732, Grenada, Grenada
170 cs, $405, Grenada, Trinidad
11 cs, $197, Lucania, Liverpool
113 cs, $382, Santiago, Cuba
40 cs, $77, Allegheny, Savanilla
10 cs, $52, Allegheny, Cartagena
240 cs, $419, Advance, Colon
417 cs, $585, Ponce, Porto Rico
120 cs, $655, Minnehaha, London
SODA, ASH—10 bbls, 2,873 lbs, $40, Allegheny, Savanilla
5 bbls, 1,542 lbs, $17, Monterey, Havana
BICARB—5 bbls, 2,000 lbs, $24, Seguranca, Havana
3 bgs, 306 lbs, $7, Maracaibo, Maracaibo
CARB—4 cs, 400 lbs, $6, Advance, Colon
CAUSTIC—10 drs, 10 kgs, 9,150 lbs, $266, Allegheny, Savanilla
10 drs, 6,750 lbs, $115, Allegheny, Kingston
10 drs, 1,120 lbs, $57, Allegheny, Cartagena
15 drs, 1,680 lbs, $84, Ponce, Porto Rico
CRYSTALS—2 cs, $36, Monterey, Havana
SAL—10 bbls, $75, Finance, Colon
6 bbls, 2,250 lbs, $15, Grenada, Trinidad
10 kgs, 1,250 lbs, $14, Advance, Colon
5 bbls, 1,990 lbs, $17, Monterey, Havana
SIL—10 bbls, 6,317 lbs, $69, Allegheny, Savanilla
SODIUM—10 cks, 1,120 lbs, $250, Indrapura, Singapore
SPERMACETI—5 cs, 312 lbs, $84, Madonna, Marseilles
SPONGE—2 bls, $60, Santiago, Cuba
STARCH—3 bbls, $45, Bovic, Liverpool
3 bbls, 60 bxs, $116, Santiago, Cuba
5 bbls, 2,100 bgs, $10,075, Calderon, Manchester
50 bgs, 20 cs, $191, Ponce, Pto Rico
174 bbls, $2,087, Minnehaha, London
CORN—4 bdls, $24, Finance, Colon
20 cs, $28, Alene, Jamaica
5 cs, $11, Allegheny, Kingston
STEARINE LARD—32 tcs, 13,505 lbs, $1,050, Bovic, Liverpool
TALLOW—10 bbls, 350 lbs, $210, Verona, Haiti
1,632 tcs, 602,188 lbs, $25,081, Madonna, Marseilles
10 tcs, 4,033 lbs, $210, Fontabelle, Demerara
275 tcs, 118,254 lbs, $4,635, Vaderland, Antwerp
12 cs, 350 lbs, $27, Grenada, Trinidad
50 tcs, 21,000 lbs, $800, Konig Albert, Genoa
26 tcs, 10,090 lbs, $487, Allegheny, Savanilla
3 bbls, 1,450 lbs, $85, Allegheny, Pt Limon
500 tcs, 179,637 lbs, $8,532, Georgia, Venice
TAR—25 bbls, $71, Rosalind, Halifax
2 bbls, $10, Finance, Colon
8 bbls, $46, Daggry, Campeche
10 bbls, $60, Fontabelle, Demerara
6 cs, $16, Cametense, Para
4 bbls, Grenada, Trinidad
7 bbls, $25, Santiago, Cuba
COAL—2 bbls, $10, Seguranca, Havana
PINE—6 cs, $22, Daggry, Progreso
3 bbls, $19, Seguranca, Havana
8 bbls, $37, Grenada, Trinidad
TURPENTINE—40 cs, $287, Tennyson, Bahia
55 cs, $332, Finance, Colon
100 cs, $675, Indrapura, Kobe
100 cs, $680, Indrapura, Singapore
30 cs, $180, Cubana, Cuba
31 cs, $245, Daggry, Progreso
70 cs, $456, Hindustan, Buenos Ayres
100 cs, $708, Hindustan, Rosario
6 cs, $40, Fontabelle, Barbadoes
5 cs, $40, Fontabelle, Demerara
3 cs, $35, Fontabelle, St Croix
200 cs, $1,441, Canova, Buenos Ayres
60 cs, $407, Cametense, Para
50 cs, $300, Alene, Colon
2 bbls, 25 cs, $318, Seguranca, Havana
3 cs, $23, Grenada, Tobago
4 cs, $33, Grenada, Ciudad Bolivar
18 cs, $118, Santiago, Cuba
65 cs, $401, Advance, Colon
7 bbls, 10 cs, $277, Ponce, Pto Rico
150 cs, $1,046, Foohng Suey, Honolulu
VARNISH—1,090 gls, $1,704, Ryndam, Rotterdam
40 gls, $33, Finance, Colon
500 gls, $315, Indrapura, Yokohama
310 gls, $477, Indrapura, Kobe
40 gls, $22, Cubana, Cuba
60 gls, $41, Daggry, Progreso
40 gls, $28, Fontabelle Barbadoes
220 gls, $212, Seneca, Tampico
60 gls, $101, Alene, Jamaica
490 gls, $598, Seguranca, Havana
30 gls, $23, Gowanburn, Rockhampton
20 gls, $31, Gowanburn, Fremantle
250 gls, $170, Columbia, Glasgow
460 gls, $315, Vaderland, Antwerp
40 gls, $26, Grenada, Tobago
2,620 gls, $4,126, Batavia, Hamburg
750 gls, $635, Konig Albert, Genoa
2,500 gls, $1,405, Calderon, Manchester
50 gls, $52, Advance, Colon
150 gls, $123, Ponce, Porto Rico
7,150 gls, $3,080, Minnehaha, London
30 gls, $15, Maracaibo, Maracaibo
60 gls, $150, Kentucky, Christiania
500 gls, $375, Monterey, Havana
REMOVER—17 cs, $153, Canova, Buenos Ayres
VITRIOL, BLUE—25 bbls, $585, Seneca, Tampico
WAX—125 bbls, $1,100, Minnehaha, London
JAPAN—3 cs, $97, Finance, Colon
PAR—130 bbls, 44,494 lbs, $2,224, Caronia, Liverpool
25 cs, 5,457 lbs, $250, Tennyson, Rio Janeiro
480 bbls, 131,827 lbs, $6,590, Bovic, Liverpool
230 cs, $681, Liguria, Genoa
20 bbls, $238, Liguria, Odessa
100 bbls, 200 bgs, 91,550 lbs, $4,615, Ryndam, Rotterdam
2,000 cs, 206,440 lbs, $12,000, Indrapura, Kobe
500 cs, 51,684 lbs, $3,000, Indrapura, Yokohama

TRIFERROL, HISTOSAN, HYDRONAL, HIRUDIN (Anticoagulant),
UROSINE, GERMAN CARBOLIC ACID, OXALIC ACID.
C. BISCHOFF & CO., 88 Park Place, . . . NEW YORK.

130 bbls, 42,215 lbs, $1,688, Brooklyn City, Bristol
105 bbls, 100 bgs, 52,612 lbs, $3,630, Brooklyn City, Exeter
100 cs, 22,877 lbs, $1,200, Star of Ireland, Auckland
100 cs, 22,961 lbs, $1,200, Star of Ireland, Lyttleton
10 cs, 2,757 lbs, $184, Cametense, Para
60 bgs, 7,800 lbs, $550, Alene, Colon
270 bgs, 28,390 lbs, $2,197, Seguranca, Havana
300 cs, 75,886 lbs, $3,600, Gowanburn, Melbourne
200 cs, 51,328 lbs, $2,406, Gowanburn, Sydney
97 bbls, 300 cs, 102,029 lbs, $5,255, Columbia, Glasgow
209 bbls, 200 bgs, 115,326 lbs, $5,770, New York, Southampton
100 bgs, 20,100 lbs, $1,250, Allegheny, Port Limon
157 bbls, $1,700, Bristol City, Bristol
1,248 bbls, 294,088 lbs, $14,765, Calderon, Manchester
397 bgs, 1,779 bbls, 647,350 lbs, $32,030, Minnehaha, London
WHALEBONE—2 cs, Kaiser Wilhelm der Grosse, Bremen
25 bdls, 1,813 lbs, $9,065, La Lorraine, Havre
WHITE LEAD—28 cs, $192, Fontabelle, St Croix
10 cs, 10 kgs, $150, Star of Ireland, Sydney
11 cs, $356, Star of Ireland, Melbourne
5 kgs, $25, Allegheny, Savanilla
WHITING—5 bbls, $0, Ponce, Porto Rico
10 bbls, $16, Monterey, Havana
ZINC ASHES—8 bbls, 4,000 lbs, $133, Bristol City, Swansea
DROSS—189 slabs, 2 pcs, 50,100 lbs, $2,900, Caronia, Liverpool
449 slabs, 55,581 lbs; $3,200, Lucania, Liverpool
OXIDE—150 bbls, 33,075 lbs, $1,100, Perugia, Marseilles
200 bbls, 44,800 lbs, $1,700, Bovic, Liverpool
410 bbls, 90,405 lbs, $3,250, Ryndam, Rotterdam
56 bbls, 12,348 lbs, $500, Grosser Kurfurst, Bremen
100 bbls, 22,400 lbs, $850, Columbia, Glasgow
225 bbls, 44,000 lbs, $2,000, Batavia, Hamburg
200 bbls, 49,000 lbs, $1,700, Calderon, Manchester
400 bbls, 89,600 lbs, $3,400, Minnehaha, London

BOSTON EXPORTS.

ACID, MUR—200 carbs, $48, J W, Halifax, N S
AMMONIA—20 bxs, $22, Prince George, Yarmouth, N S
BONES, GR—200 bgs, $245, J W, Lunenburg, N S
400 bgs, $490, J W, Pictou, N S
COAL TAR—180,000 gals, $9,000, Cardiff, Halifax
CREOSOTE—176 cks, Bohemian, Liverpool
FERTILIZER—300 bgs, $330, J W, Lunenburg, N S
160 bgs, $176, J W, Pictou, N S
GLUE, FISH—3 bbls, $151, Artemesia, Hintz
12 bbls, $350, Devonian, Liverpool
GREASE—90 bbls, $845, Artemesia, Hamburg
100 bbls, $1,915, Canopic, Genoa
LOGWOOD—5 bbls, $26, J W, Meteghan, N S
OIL, FISH—20 bbls, $500, Devonian, Liverpool
LINSEED—1 bbl, $25, Admiral Dewey, Jamaica
LUB—2 bbls, $28, Boston, Yarmouth, N S
MIN, SPERM—50 bbls, $327, Devonian, Liverpool
OLEO—25 tcs, 100 bbls, $4,625, Artemesia, Hamburg
25 tcs, $1,000, Sylvania, Liverpool
100 tcs, $2 951, Devonian, Liverpool
SOAP—15 cs, $1,875, Devonian, Liverpool
TAR—2 bbls, $14, J W, Meteghan, N S
TURPENTINE—1 bbl, $8, J W, Meteghan, N S
1 bbl, $37, Admiral Dewey, Jamaica
VARNISH—50 gals, $60, Devonian, Liverpool
1 bx, $16, Admiral Dewey, Jamaica

Philadelphia Exports.

ALCOHOL, WOOD—800 bbls, 34 drs, Armenia, Hamburg
AMMONIA—25 cryls, Manch Comm, Manchester
ASPHALTUM—180 bbls, Armenia, Hamburg
BARK EXTR—50 bbls, Menominee, Antwerp
DYEWOOD EXTR—200 bxs, Armenia, Hamburg
GLUCOSE—660 bbls, Manch Comm, Manchester
180 bbls, Menominee, Antwerp
777 bbls, North Point, London
GRAPE SUGAR—3,000 bgs, Manch Comm, Manchester.
GRAPHITE—104 cks, North Point, London
GREASE—535 bbls, Noordland, Liverpool
7 bbls, Armenia, Hamburg
LINSEED CAKE—665 sks, Mackinaw, London
3,229 sks, Menominee, Antwerp
LOGWOOD—45 bxs, Mackinaw, London
MAGNESITE—469 sks, Nicanor, Sydney
OIL CAKE—450 tons, Patria, Rotterdam
363 bgs, Armenia, Hamburg
7,151 bgs, Menominee, Antwerp
1,005 sks, North Point, London
CAKE CORN—440 bgs, Armenia, Hamburg
COTTONSEED—110 bbls, Armenia, Hamburg
LUB—36,454 gls, Mackinaw, London
2,200 gls, Armenia, Hamburg
128,708 gls, Manch Comm, Manchester
112,100 gls, Menominee, Antwerp
75,238 gls, North Point, London
115,000 gls, Thessalia, Hamburg
160,000 gls, Patria, Rotterdam
200,600 gls, Crown Point, London
80,000 gls, Friesland, Liverpool
MINERAL CALZA—25,514 gls, Mackinaw, London
5,111 gls, Manch Comm, Manchester
5,000 gls, Menominee, Antwerp
NEATSFOOT—10 bbls, Armenia, Hamburg
50 bbls, Menominee, Antwerp
OLEO—75 tcs, Armenia, Hamburg
RED—425 bbls, Armenia, Hamburg
OLEOMARGARINE—250 tcs, Mackinaw, Ldon
590 tcs, Armenia, Hamburg
890 tcs, Patria, Rotterdam
POTASH BROMIDE—100 bxs, North Point, London
ROSIN—100 bbls, North Point, London
SIZE—22 bbls, Manch Comm, Manchester
SOAP—1,550 cs, Mackinaw, London
500 bxs, Manch Comm, Manchester
12 bbls, Menominee, Antwerp
1,500 bxs, North Point, London
STARCH—4,162 bgs, Manch Comm, Manchester
900 bgs, North Point, London
PAR—310 bbls, Mackinaw, London
868 bbls, Noordland, Liverpool.
300 cs, 400 bbls, Manch Comm, Manchester
675 bbls, North Point, London

Baltimore Exports.

CARBON BLACK—100 cs, Darmstadt, Bremen
GLUCOSE—40 bbls, Belfast, Belfast
OIL CAKE—2,665 sks, Belfast, Belfast

Galveston Exports.

COTTONSEED MEAL—14,263 sks, $19,140, Lord Dufferin, Rotterdam
1,354 sks, $2,900, Norseman, Liverpool
2,727 sks, $5,226, Civilian, Liverpool
2,695 sks, $7,531, Indian, Bremen

New Orleans Exports.

BRIMSTONE—2,058 tons, Yola, Miramichi
2,311 tons, Yola, Three Rivers
651 tons, Yola, Montreal
GREASE—25 bbls, Excelsior, Havana
233 bbls, Bosnia, Hamburg
OIL, COTTONSEED—850 bbls, Milton, Antwerp
565 bbls, Bosnia, Hamburg
OLEO—70 tcs, Bosnia, Hamburg
SOAP—1,191 bbls, Nicaraguan, Liverpool
SULPHUR—11 bbls, George Dumois, Belize
TURPENTINE—160 bbls, Nicaraguan, Liverpool

San Francisco Exports.

ACID—2 tanks, El Presidents, Colombia
2 pkgs, Acapulco, Salvador
BLUESTONE—22,000 lbs, Acapulco, Honduras
1,229 lbs, Queen, Br Columbia
CANDLES—100 bxs, Albert, Honolulu
5 bxs, Acapulco, Costa Rico
GLASS—10 bxs, El Presidents, Colombia
QUICKSILVER—100 flsks, Acapulco, Honduras
PAINT—2 pkgs, El Presidents, Colombia
13 cs, Acapulco, Mexico
52 pkgs, Acapulco, Guatemala
18 pkgs, Acapulco, Salvador
2 pkgs, Queen, Br Columbia
SOAP—300 bxs, Albert, Honolulu
475 bxs, Gerard C Tobey, Honolulu
250 bxs, El Presidents, Colombia
20 bxs, Acapulco, Guatemala
3 bxs, Acapulco, Salvador
55 cs, H C Wright, Makona
SODA ASH—100 lbs, Acapulco, Salvador
SULPHUR—204 lbs, Acapulco, Mexico
500 lbs, Acapulco, Salvador
TALLOW—54,314 lbs, Acapulco, Guatemala
2,500 lbs, Acapulco, Salvador
2,165 lbs, Acapulco, Nicaragua
145,490 lbs, Walden Abbey, London
TAR—12 bbls, El Presidents, Colombia
5 pkgs, Acapulco, Salvador
TURPENTINE—2 cs, Acapulco, Mexico
15 cs, Acapulco, Guatemala
2 cs, Acapulco, Salvador
VARNISH—2 cs, Acapulco, Guatemala
3 cs, Acapulco, Salvador
WHITE LEAD—260 kgs, Gerard C Tobey, Honolulu
25 cs, El Presidents, Colombia
40 kgs, 7 cs, Acapulco, Guatemala
2 kgs, 50 cs, Acapulco, Salvador
10 pkgs, H C Wright, Makona

CHARTERS.

Following is a list of vessels chartered at principal ports during the past week to convey products to or from American ports:—

CHALK—Br str Himera, London to New York p t
KAINIT—Br str Albura, Hamburg to Charleston p t
MANGANESE—Br str Gorjistan, Bombay to Balto, 18s
NAVAL STORES—Nor bk Brittania, Wilmington to United Kingdom

NEW YORK DOMESTIC RECEIPTS.

For week ending Oct. 12.

ALCOHOL—300 bbls, order, New Orleans
15 bbls, order, D, L & W R R
WOOL—215 bbls, W S Gray, L V R R
80 bbls, Rogers & P, L V R R
100 bbls, W S Gray, F R L
BARYTES—458 bbls, order, O D S S L
BEESWAX—3 pgs, 4 bbls, order, O D S S L
2 pgs, order, Georgetown
CLAY—1,992 bgs, order, Jacksonville
176 cks, order, Charleston
FLAXSEED—10 cars, Nat Lead Co, L V R R
17,000 bush, Am Line Co, Canal
GREASE—5 bbls, order, O D S S L
80 bbls, W D Vandenhove & Co, P R R
75 bbls, export, P R R
52 bbls, order, F R L
100 bbls, E S Kuh & Co, P R R
6 bbls, S E Heyman & Co, P R R
78 bbls, A C Knight & Co, P R R
HIGHWINES—435 bbls, order, New Orleans
2,690 bbls, order, D, L & W R R
90 bbls, order, L V R R
45 bbls, Rogers & P, L V R R
LEAD—7,700 pigs, Am Met Co, Galveston
OCHRE—100 bbls, order, S S S L
OIL CAKE—2,165 sks, export, W S R R
896 sks, export, P R R
1,720 sks, order, D, L & W R R
2,688 sks, export, L V R R
5,099 bgs, order, D, L & W R R
250 sks, order, J C R R
COTTONSEED—13 tank cars, Swift & Co, E R R
25 bbls, export, New Orleans
292 bbls, order, J C R R
30 cs, 1,722 bbls, order, S S S L
200 bbls, export, H R R
100 bbls, Pool & M, B & O R R
172 bbls, 1 car, export, B & O R R
10 bbls, order, Galveston
100 bbls, Poole & M, H R R
28 bbls, order, B & O R R
LINS—120 bbls, T R Bagot, W S R R
60 bbls, DeVoe & R, D, L & W R R
180 bbls, J W Masury & Co, D, L & W R R
60 bbls Mayo & Co, D, L & W R R
68 bbls, export, D, L & W R R
136 bbls, F I Cooledge, D, L & W R R
190 bbls, Am Lins Co, D, L & W R R
60 bbls, F O Pierce Co, D, L & W R R
LUB—124 bbls, A H Post & Co, P R R
121 bbls, L Sonneborn & Son, P R R
242 bbls, order, J C R R
111 bbls, order, P R R
123 bbls, export, P R R
61 bbls, S E Heyman & Co, P R R
185 bbls, Hanseatic Oil Co, P R R
133 bbls, Lunham & M, P R R
1 tank, Ganna Signal Oil Co, B & O R R
120 bbls, export, W S R R
MEAL—1,100 sks, export, W S R R
OLEO—4,110 tcs, export, L V R R
263 tcs, order, J C R R
775 tcs, export, W S R R
100 tcs, export, D, L & W R R
175 tcs, Kingan & Co, H R R
70 tcs, M Frankfort, P R R
255 tcs, export, E R R
75 tcs, export, P R R
ROSIN—257 bbls, order, S S S L
OLEOMARGARINE—670 tcs, export, D, L & W R R
150 tcs, export, B & O R R
PITCH—50 bbls, order, S S S L
5 bbls, order, Wilmington
POTASH—8 cks, order, L V R R
QUICKSILVER—339 flasks, Haas Bros, Galveston
ROSIN—452 bbls, order, O D S S L
4,520 bbls, order, Jacksonville
1,132 bbls, order, S S S L
200 bbls, order, Charleston
120 bbls, export, Brunswick
500 bbls, Patterson, D & Co, Brunswick
968 bbls, order, Georgetown
1,244 bbls, order, Wilmington
SHEEP DIP—300 sks, export, O D S S L
SPELTER—1,726 slabs, J K McGowan, Galveston
839 slabs, Dickerson, V D & Co, P R R
SPONGE—18 bls, McKesson & R, Key West
13 bls, Lasker & B, Key West
33 bls, order, S S S L
STEARINE—250 tcs, export, L V R R
160 tcs, export, W S R R
60 bbls, Wilcox Ld Refg Co, P R R
TALLOW—84 bbls, order, D, L & W R R
14 bbls, order, O D S S L
1 car, Phg Hide & Tallow Co, B & O R R
100 bbls, W D Vandenhave & Co, F R L
22 bbls, B T Babbitt, W S R R
19 bbls, W D Vandenhove & Co, W S R R
70 tcs, export, E R R
70 bbls, W D Vandenhove & Co, P R R
112 bbls, order, J C R R
135 bbls, order, F R L
240 tcs, export, W S R R
25 bbls, Armour & Co, P R R
75 bbls, H W Calef, P R R
TAR—153 bbls, order, O D S S L
324 bbls, order, S S S L
68 bbls, order, Georgetown
417 bbls, order, Wilmington
TURPENTINE—949 bbls, order, Jacksonville
249 bbls, order, S S S L
3 bbls, order, O D S S L
12 bbls, order, Mobile
177 bbls, order, Georgetown
78 bbls, order, Wilmington

Total Domestic Receipts.

At New York for week ending Oct. 12, 1905.

	For week.	Since Jan. 1.
Alcohol, bbls	315	6,497
Beeswax, pkgs	9	546
Boneblack	....	3,068
Borax	....	1,026
Cottonseed, bgs	....	22
Ashes, bgs	....	979
Cake, bgs	....	.....
Meal	....	34,930
Flaxseed, bush	27,000	915,209
Grease	394	294,663
Highwines, bbls	3,260	61,208
Lead, pigs	7,700	249,500
Mustard seed	....	2,666
Oil Cake, bgs	13,328	367,435
Cottonseed, bbls	4,535	441,720
Fish, bbls	....	40
Lard, bbls	....	1,545
Lubricating, bbls	1,280	34,167
Oleo stock, tcs	....	783
Pitch, bbls	55	1,706
Quicksilver, flasks	339	6,884
Rosin, bbls	9,136	352,540
Soap stock, bbls	....	3,870
Spelter	2,565	107,512
Sponges, bls	64	7,700
Stearine, pkgs	470	12,969
Tallow, bbls	996	49,335
Tar, bbls	962	22,862
Turpentine, crude, bbls	....	691
Spirits, bbls	1,468	94,216

Boston Domestic Receipts.

Week ending Oct. 11.

CHINA CLAY—116 cks, Charleston
COTTONSEED MEAL—30 tons
GREASE—524 bbls
TALLOW—98 bbls

Baltimore Domestic Receipts.

Week ending Oct. 12.

SULPHUR—2,300 tons, New Orleans

New Orleans Domestic Receipts.

Week ending Oct. 10.

COTTONSEED—2,709 sks, Bayou Sara
3,458 sks, Melville
PHOSPHATE ROCK—175 tons, Pt Tampa

Savannah Domestic Receipts.

Week ending Oct. 10.

ROSIN—7,761 bbls
TURPENTINE—2,602 bbls

San Francisco Domestic Receipts.

Week ending Oct. 6.

SODA CAUSTIC—50 drs, City of Panama, New York

Wilmington Domestic Receipts.

Week ending Oct. 10.

ROSIN—949 bbls
TAR—439 bbls
TURPENTINE—304 bbls
CRUDE—578 bbls

TOTAL IMPORTS AT NEW YORK.

In the following table we give the total imports (in packages unless otherwise specified), and their value at the port of New York for the week ending Oct. 13, 1905:—

	Quantity.	Value.
Glass, plate	84	13,175
Window	4,373	8,556
Arsenic	175	1,796
Acid, benzoic	35	1,999
Carbolic	155	4,325
Citric	2	42
Oxalic	65	2,474
Other	61	1,345
Aniline colors	1,527	65,603
Salt	17	946
Ammonia, muriate	60	3,289
Sal	20	1,597
Sulph	500	2,967
Argols	1,254	27,628
Albumen	48	3,876
Alizarine	89	7,564
Asst	50	1,160
Asphalt	....	508
Balsam, unspecified	6	55
Bark, unspecified	939	754
Barytes, sulph	428	481
Bleach powder	624	6,006
Brimstone	....	23,942
Bronze powder	....	8,695
Buchu leaves	1	88
Butter, cocoa	572	20,285
Chalk	....	392
Chemical salts	40	15,243
Citrate of lime	117	17,727
Cinchonidia	76	9,606
Cochineal	44	2,924
Coca leaves	404	11,940
Cobalt	10	2,003
Cutch	600	2,920
Dextrine	200	1,595
Dyewood ext	30,636	99,123
Ergot	29	1,746
Fish sounds	8	150
Flowers, unspecified	241	2,761
Fuller's earth	775	583
Gambier	8,810	52,456
Gelatine	30	840
Glycerine	285	17,869
Gum, arabic	194	6,271
Aloes	38	770
Benjamin	10	140
Chicle	527	12,903
Copal	2,533	25,945
Camphor	335	17,940
Damar	210	3,431
Kowrie	444	15,586
Shellac	63	3,756
Tragacanth	188	11,649
Other	177	3,579
Glue	200	1,039
Indigo	50	2,380
Auxiliary	21	1,473
Iodine	42	14,212
Locust beans	100	408
Magnesia	200	152
Manure salt	....	65,934

J. L. & D. S. RIKER,

46 Cedar Street, ... NEW YORK.

Importers' and Manufacturers' Agents.

SOLE AGENTS FOR THE UNITED STATES AND CANADA OF

The United Alkali Co., Limited, of Great Britain,

FOR THE SALE OF THEIR VARIOUS BRANDS OF

BLEACHING POWDER

Mica	12	836
Nut galls	180	5,508
Orchilla ongnor	12	754
Oxide, zinc	117	2,628
Oil, aniline	32	3,698
Almonds	11	280
Anise	386	27,682
Bergamot	35	1,838
Camphor	2	42
Cassia	141	3,742
Citronella	67	6,447
Cod	781	12,552
Cocoanut	195	12,316
Geranium	1	981
Haariem	35	510
Linseed	1	20
Lavender	121	7,908
Lemon	108	1,645
Nut	1,952	19,596
Neroli	1	822
Origanum	1	37
Orange	1	39
Olive	2,176	17,785
Palm	27	1,955
Rapeseed	452	8,329
Rose	5	7,464
Sod	93	1,441
Thyme	2	181
Other ess	758	8,595
All other	25	421
Opium	15	4,349
Prep. of	1	3,856
Paints, unspecified	....	13,602
Berlin blue	11	869
Blanc fixe	98	1,017
Chrome yellow	4	144
Colesthar	11	35
Drop black	23	1,718
Iron oxide	18	207
Lithopone	44	859
Ocher	376	2,161
Prussian blue	4	202
Vandyke brown	26	150
Venetian red	181	594
Vermilion	1	280
White lead	178	4,558
Potash, carb	20	833
Caustic	104	3,278
Cyanide	425	10,432
Prussiate	60	2,834
Sulph	462	2,099
Root, licorice	12,941	83,640
Sarsaparilla	2	46
Squills	12	64
Other	92	845
Senna	259	2,622
Soda, ash	151	2,913
Caustic	295	1,937
Chlor	100	681
Nitrate	60,528	143,930
Sponges	724	16,579
Stearine	156	1,950
Sulphur	40	135
Sumac	2,203	5,919
Ext	36	576
Talc	700	1,125
Tonka beans	30	1,170
Ultramarine	17	92
Vanilla beans	55	15,645
Varnish	110	4,379
Venice turpentine	50	2,160
Wool grease	40	428
Other	....	47,257
Bristles	259	73,372
Glue Stock	....	10,640
Rennets	2	2,163
Alcohol	6	71
Antimony	30	717
Metal Leaf	3	527
Carria e	1,890	7,422
Buds	225	2,233
Cinnamon	100	1,430
Chillies	1,130	5,372
Cloves	500	6,283
Ginger	373	1,370
Mace	48	1,302
Nutmegs	1,394	12,704
Pepper	12,941	182,176
Pimento	2,920	18,780
Corkwood	....	14,182
Dyewood	....	35,516
Logwood, M lbs	216	923
Candles	....	38
Clay	....	3,983
Corks	....	1,558
Fertilizer	....	5,808
Gelatine, Mfs. of	....	298
Rice Flour	50	262
Seed, Annatto	22	288
Canary	987	5,013
Caraway	200	654
Cardamom	617	2,978
Castor	20	77
Coriander	774	3,584
Fennel	39	138
Hemp	76	284
Mustard	800	5,579
Poppy	210	864
Rape	100	500
Other	....	5,141
Soap, Castile	251	796
Other	56	3,822
Stock	1,331	25,782
Pumice stone	....	5,515
Tapioca Flour	2,204	6,102
Wax	....	47,951

The Belgian Glass Industry.

The exports of glass again showed a considerable falling off in comparison with the year 1903, the decline amounting to 47,655 tons and 555,520l., the figures for 1904 being 189,846 tons, valued at 3,022,600l. The decrease in the exports is largely due to the diminished quantity of glass of all kinds sent to the United Kingdom, the United States of America, Japan, Canada, Denmark and Egypt. The decrease in the exports to Japan was very marked, the falling off amounting to nearly two-thirds of the total exports to that country in 1903.

This dullness in the glass export trade is due to the smaller output of the factories owing to a general strike in the industry in the early part of 1904, and a consequent cessation of the glass supply. Orders have been placed more freely since the month of June in the present year (1905), and prices are keeping up to a fair standard, particularly in regard to special qualities of glass exported to Japan, China and Canada. The trade with the United Kingdom is not, however, very prosperous, and the lack of orders from that quarter has necessitated the lowering of prices for certain qualities of glass.

The actual prices quoted in June of this year were as follows:—

	Price. From— £ s.	To— £ s.
300-foot cases, coarse	1 6	1 8
300-foot cases, 4ths	1 8	1 10
300-foot cases, 3rds	1 12	1 15

The state of the relations between masters and men is still somewhat strained, and at any moment a slight misunderstanding might cause a break in the present arrangements.

With regard to the plate-glass industry, the orders placed became somewhat more numerous towards the middle of the year 1904, owing to rumors of an intended amalgamation of the European manufacturers, and during July of the same year Belgian makers had booked orders for several months in advance. In August, 1904, an international syndicate was formed for the avowed purpose of regulating the price of plate-glass in the different countries of Europe and of restricting production. The prices fixed for Belgian produce are considered to be very satisfactory for the manufacturers.

Mr. Fitzmaurice, lately Vice-consul at Charleroi and now Vice-consul at Bruges, reports as follows respecting the principal industries of his late district:—

"In the early part of 1904 prices of window glass were very low, as the supply was in excess of the demand, and fell to such an extent that the factories were kept open at a loss. In consequence of this the owners of works endeavored to reduce the wages of the workmen, but they did not succeed in inducing the men to accept the reduction. When the manufacturers eventually decided to announce a reduction of wages, a strike which lasted nearly a whole year broke out among the glass blowers, who are nearly all affiliated to unions and strongly allied; but as the manufacturers were losing money previous to the strike it was necessary for them to take some steps, and hence the reduction in wages.

Three works which were outside the "Bassin de Charleroi" did not close, and two of the factories in that district also did not cease work. This strike lasted till June 1, 1905, and during its continuance the little glass that was made was sold at very high prices. The workmen eventually accepted all the masters' conditions.

On August 17, 1904, an international syndicate was formed comprising many of the plate-glass works of Belgium (including the Courcelles works, which had been bought by an American firm), of Germany, France, the United Kingdom, Italy, Austria-Hungary and the Netherlands, each company doing its own selling. The syndicate has an office at Brussels, which controls the general conditions of the alliance. Since the formation of this syndicate prices have gone up about 25 per cent. and have still an upward tendency."—British Consular Report.

GOODS ON THE WAY TO THE UNITED STATES.

W. C. S. AMERICA.

TO THE UNITED STATES.

Britannia (ss), 4,500 tons nitrate soda.
Comet, 4,900 tons nitrate soda.
Brilliant, 6,000 tons nitrate soda.
Massapequa (ss), 3,800 tons nitrate soda.
Indian (ss), 5,500 tons nitrate soda.
Celia (ss), 6,000 tons nitrate soda.
Memnon (ss), 4,000 tons nitrate soda.
Manhanset (ss), 4,000 tons nitrate soda.
Drumeltan (ss), 2,200 tons nitrate soda.
Lady Armstrong (ss), 4,000 tons nitrate soda.
Geo. Fleming (ss), 5,400 tons nitrate soda.
Hughenden (ss), 4,600 tons nitrate soda.
Thistlebank (ss), 3,000 tons nitrate soda.
Delmira (ss), 5,400 tons nitrate soda.
Juanita North (ss), 5,400 tons nitrate soda.
Yoruba (ss), 3,500 tons nitrate soda.
Masconomo (ss), 6,000 tons nitrate soda.
Astoria (ss), 6,000 tons nitrate soda
Fitzjames (ss), 2,800 tons nitrate soda.
Ardova (ss), 5,000 tons nitrate soda.
Auchenorag (ss), 5,000 tons nitrate soda.
Hillmere (ss), 5,000 tons nitrate soda.
Anglo-Canadian (ss), 6,000 tons nitrate soda.
Borderer (ss), 6,000 tons nitrate soda.
Mohican (ss), 3,500 tons nitrate soda.
Thornhill (ss), 4,600 tons nitrate soda.
King George (ss), 3,500 tons nitrate soda
Craigvar (ss), 5,500 tons nitrate soda.
Brantwood (ss), 3,500 tons nitrate soda.
Ville de Rouen (ss), 5,200 tons nitrate soda.
Condor (ss), 2,900 tons nitrate soda.

RECORD OF VESSELS.

SAILED.

Port and Name.

W. C. S. America.

Britannia (ss)	Due October.
Indian (ss)	Due October.
Massapequa (ss)	Due October.
Celia (ss)	Due October.
Geo. Fleming (ss)	Due October.
Hughenden (ss)	Due November.
Memnon (ss)	**Due November.**
Thistlebank (ss)	Due November
Delmira (ss)	Due November.
Juanita North (ss)	Due November.
Ville de Rouen (ss)	Due November.
Yoruba (ss)	Due December.
Lady Armstrong (ss)	Due December.
Manhanset (ss)	Due December.
Hillmere (ss)	Due December.
Anglo-Canadian (ss)	Due December.
Fitzjames (ss)	Due December.
Condor (ss)	Due December
Brilliant	Due January, 1906.
Masconomo (ss)	Due January
Ardova (ss)	Due January.
Borderer (ss)	Due January.
Astoria (ss)	Due February.
Comet	Due February.
Mohican (ss)	Due February.
Thornhill (ss)	Due February.
Auchencrag (ss)	Due February.
King George (ss)	Due March.
Drumeltan (ss)	Due April
Craigvar (ss)	Due April.
Brantwood (ss)	Due April.

FOREIGN MAILS.

Foreign mails for the week ending October 21, 1905, will close (promptly in all cases) at the General Post Office as follows:—Registered and Parcels-Post Mails close at the General Post Office one hour earlier than closing time show below. Parcels-Post Mails for Germany close at 5 p. m. October 18 and 23.

Parcels-Post Mails for Great Britain and Ireland are dispatched by the White Star Line on Wednesdays and by the American Line on Saturdays. An additional dispatch is made by the Cunard Line when a Cunard steamer sails on Saturday later than the American Line steamer the same day. The Parcels-Post mails close one hour before the regular mails.

Parcels-Post Mail for Barbadoes and Great Britain and Ireland CANNOT be registered.

Regular and supplementary mails close at Foreign Station (corner of West and Morton streets) half hour later than closing time shown below (except that supplementary mails for Europe, and for Central America via Colon, close one hour later at Foreign Station.)

TRANS-ATLANTIC MAILS.

WEDNESDAY (18).—At 4.30 a. m. for Ireland and France, per s. s. Baltic, via Queenstown, and Liverpool (also other parts of Europe when specially addressed for this steamer); at 7.30 a. m. for Netherlands direct (specially addressed only), per s. s. Potsdam; at 8.30 a. m. for Italy direct (specially addressed only), per s. s. Sicilia.

THURSDAY (19).—At 5 a. m. for Europe, per s. s. Deutschland, via Plymouth, Cherbourg and Hamburg (including France when specially addressed for this steamer); at 7 a. m. for France, Switzerland, Italy, Spain, Portugal, Turkey, Egypt, Greece and British India, per s. s. La Savoie, via Havre (also other parts of Europe when specially addressed for this steamer); at 9 a. m. for Azores Islands, per s. s. Brooklyn (also Italy when specially addressed for this steamer); at 9.30 a. m. for Italy direct (specially addressed only, per s. s. Republic.

SATURDAY (21).—At 6 a. m. for Europe, per s. s. Philadelphia, via Plymouth and Cherbourg (including Liverpool, Scotland and Ireland when specially addressed for this steamer); at 6.30 a. m. for Europe, per s. s. Campania, via Queenstown and Liverpool; at 7.30 a. m. for Italy direct (specially addressed only), per s. s. Fuerst Bismarck; at 8.30 a. m. for Belgium (Parcels-Post Mails), per s. s. Zeeland (also regular mail for Belgium when specially addressed for this steamer); at 9.30 a. m. for Scotland direct (specially addressed only), per s. s. Caledonia.

MAILS FOR SOUTH AND CENTRAL AMERICA, WEST INDIES, ETC.

SUNDAY (15).—At 7 a. m. for Northern Brazil, per s. s. Dunstan, via Para and Manaos.

MONDAY (16).—At 9.30 a. m. (supplementary 10.30 a. m.) for Nicaragua (except East Coast), Honduras (except East Coast), Salvador, Panama, Canal Zone, Cauca Department of Colombia, Ecuador, Peru, Bolivia and Chili, per s. s. Mexico, via Colon (also Guatemala when specially addressed for this steamer).

TUESDAY (17).—At 9 a. m. for Argentine, Uruguay and Paraguay, per s. s. Bankfields; at 12 m. for Yucatan and Campeche (specially addressed only), per s. s. Tjomo.

WEDNESDAY (18).—At 4 a. m. for Brazil, per s. s. Wotan, via Rio Janeiro and Santos (including Northern Brazil, Argentine, Uruguay and Paraguay when specially addressed for this steamer); at 9.30 a. m. (supplementary 10.30 a. m.) for Inagua, Haiti and Magdalena Department of Colombia, per s. s. Graecia (including Cape Haiti and Fort de Paix when specially addressed for this steamer); at 10 a. m. for Grenada, St. Vincent, Trinidad, Guiana and Ciudad Bolivar, per s. s. Maracas via Grenada and Trinidad; at 12 m. for Cuba (specially addressed only), per s. s. Hermia, via Matanzas.

THURSDAY (19).—At 9 a. m. for Cuba, Yucatan and Campeche, per s. s. Esperanza (also other parts of Mexico when specially addressed for this steamer).

FRIDAY (20).—At 10.30 a. m. for Newfoundland, per s. s. Rosalind; at 12 m. (supplementary 12.30 p. m.) for the Bahamas, per s. s. Saratoga (also Santiago when specially addressed for this steamer); at 12 m. for Guantanamo (specially addressed only), per s. s. Yumuri; at 12.30 p. m. (supplementary 1.30 p. m. for St. Thomas, St. Croix, Leeward and Windward Island and Guiana, per s. s. Korona.

SATURDAY (21).—At 8.30 a. m. (supplementary 9.30 a. m.) for Curacao and Venezuela, per s. s. Zulia (also Colombia, via Curacao, when specially addressed for this steamer); at 9 a. m. for Porto Rico, per s. s. Coamo, via San Juan; at 9 a. m. for St. Kitts, Nevis, St. Eustatius, St. Martins, Barbadoes and Guiana, per s. s. Uller; at 10 a. m. for Cuba, per s. s. Monterey, via Havana; at 11.30 a. m. (supplementary 12.30 p. m.) for Fortune Island, Jamaica and Colombia, except Cauca and Magdalena Departments, per s. s. Sarnia(also Costa Rica, via Limon, when specially addressed for this steamer).

NOTICE.—Five cents per half ounce in addition to the regular postage, must be prepared on all letters forwarded by the Supplementary Mails, and letters deposited in the drops marked "Letters for Foreign Countries," after the closing of the regular mail, for dispatch by a particular vessel, will not be so forwarded unless such additional postage is fully prepaid thereon by stamps. Supplementary Trans-Atlantic Mails are opened on the piers of the American, English and French steamers whenever the sailings occur at 9.00 a. m. or later; and late mail may be deposited in the mail boxes on the piers of the German Lines sailing from Hoboken. Supplementary mail for Turks Island and Dominican Republic is also opened on the Clyde Line Pier. The mails on the piers open one hour and a half before sailing time, and close ten minutes before sailing time. Only regular postage (letters 5 cents a half ounce) is required on articles mailed on the piers of the American, White Star and German (Sea Post) steamers; double postage (letters 10 cents a half ounce) on other lines.

MAILS FORWARDED OVERLAND, &C., EXCEPT TRANS-PACIFIC.

Mails (except Jamaica and Bahamas) are forwarded daily to ports of sailing. The CONNECTING mails close at the General Post Office, New York, as follows:—

CUBA, via Port Tampa, at §4.30 a. m. Monday, Wednesday and Saturday. (Also from New York, Thursday and Saturday—see above.)

NEWFOUNDLAND (except Parcels-Post Mails), via North Sydney at 7 p. m. Monday, Wednes and Saturday (also occasionally from New York and Philadelphia. See above).

MIQUELON, via Boston and North Sydney, at 6.30 p. m. every other Sunday (October 22, November 5 and 19, etc.)

JAMAICA, via Boston, at 7.00 p. m. Tuesday; via Philadelphia, at 10.30 p. m. Wednesday. (Also from New York on Saturday. See above.)

COSTA RICA, via New Orleans at §10.30 p. m. Monday. Sailings from New Orleans may be irregular on account of Quarantine.

MEXICO CITY, overland, at 1.30 p. m. and 10.30 p. m. daily, except Sunday; Sunday at 1.00 p. m. and 10.30 p. m.

BRITISH HONDURAS, HONDURAS (East Coast) and GUATEMALA, via Mobile, at §10.30 p. m. Monday. (West Coast of Honduras is dispatched from New York via Panama—see above.)

NICARAGUA (East Coast, via Mobile, at §10.30 p. m. daily (West Coast of Nicaragua is dispatched from New York via Panama—see above.) Sailings from Mobile uncertain.

§Registered Mail for overland dispatches closes at 6.00 p. m. previous day.

TRANS-PACIFIC MAILS, FORWARDED OVERLAND DAILY.

The schedule of closing of Trans-Pacific Mails is arranged on the presumption of their uninterrupted overland transit to port of sailing. The final connecting mails (except Registered Trans-Pacific Mails dispatched via Vancouver, Victoria, Tacoma or Seattle, which close 6 p. m. previous day) close at the General Post Office, New York, as follows:—

Hawaii, Japan, Korea, China and Philippine Islands, via San Francisco, close at 6 p. m. October 16 for dispatch per s. s. Coptic.

Hawaii, via San Francisco, close at 6 p. m. October 16 for dispatch per s. s. Alameda.

Japan, Korea, China and Philippine Islands, via Seattle, close at 6 p. m. October 18 for dispatch per s. s. Kanagawa Maur.

Japan, Korea, China and Philippine Islands, via Seattle, close at 6 p. m. October 19 for dispatch per s. s. Lyra.

Hawaii, Japan, Korea, China and Philippine Islands, via San Francisco, close at 6 p. m. October 22 for dispatch per s. s. America Maru.

Japan (except Parcels-Post Mails), Korea, China and Philippine Islands, via Vancouver and Victoria, B. C., close at 6 p. m. October 24 for dispatch per s. s. Empress of Japan.

New Zealand, Australia (except West), New Caledonia, Samoa, Hawaii and Fiji Islands, via San Francisco, close at 6 p. m. October 28 for dispatch per s. s. Ventura. (If the Cunard steamer carrying the British mail for New Zealand does not arrive in time to connect with this dispatch, extra mails—closing at 5.30 a. m., 9.30 a. m. and 6 p. m.; Sundays at 4.30 a. m., 9 a. m. and 6 p. m.—will be made up and forwarded until the arrival of the Cunard steamer).

Philippine Islands and Guam, via San Francisco, close at 6 p. m. October 31 for dispatch per U. S. Transport.

Fiji Islands, Australia (except West) and New Caledonia, via Vancouver and Victoria, B. C., close at 6 p. m. November 4 for dispatch per s. s. Moana.

Tahiti and Marquesas Islands, via San Francisco, close at 6 p. m. November 17 for dispatch per s. s. Mariposa.

Manchuria (except Mukden, Newchwang and Port Arthur) and Eastern Siberia is at present forwarded via Russia.

NOTE.—Unless otherwise addressed, West Australia is forwarded via Europe; New Zealand via San Francisco, and certain places in the Chinese Province of Yunnan, via British India—the quickest routes. Philippines specially addressed "via Europe" must be fully prepaid at the foreign rates. Hawaii is forwarded via San Francisco exclusively. Parcels-Post mails for New Zealand and Australia (including West Australia) are forwarded via San Francisco exclusively.

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CHEMICAL MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 33.

Saturday Noon, Oct. 14, 1905.

Market conditions throughout the list of heavy chemicals and kindred commodities remain practically as noted in previous reports, and the general movement into the various channels of consumption continues satisfactory to manufacturers and dealers. Deliveries of round lots are somewhat retarded by continued scarcity of freight cars, and consumers are more or less inconvenienced by the delay in getting supplies, but no serious results have yet followed, and taken altogether, the situation is far from being unsatisfactory. Additional business is noted in alkali, caustic and bleach. Brimstone shows considerable steadiness. Blue vitriol is firm in all positions. Chlorate of potash continues in light supply, with values well sustained. Oxalic acid is in demand for delivery next year, but there is no improvement in prices. White arsenic is strong in price owing to scarcity. Copperas is firm at the recently advanced quotations. Carbonate of potash on the spot is steady, but deliveries next spring continue easy. Other light chemicals and the various acids continue to find a seasonable outlet, but there are no new features requiring special mention.

Heavy Chemicals.

ALKALI.—Consuming channels are absorbing the bulk of the output of manufacturers, and complaint is still heard regarding delay in shipping promptly owing to scarcity of freight cars. Further orders have been booked for delivery over this and next year, and some business is noted for prompt, of domestic high test on the basis of .75c. for light in bulk, .80c. for bags, and dense in bulk, .80c. and bags, .85c. with ordinary 48 per cent. at 87½c. f. o. b. works, as to quantity and terms of sale. Spot parcels are finding a good jobbing outlet at .85@95c., according to test and quantity.

BICARB SODA..—Prompt and future deliveries show no diminution of demand, and the market has a moderately active appearance. In addition to the regular contract orders new business is being booked on the basis of 1.30c. for bulk and 1.50c. for kegs f. o. b. works, and the usual advance of 20c. all around for delivery in this section, less the usual discount terms.

BLEACHING POWDER. — As most of the larger contracts for deliveries over next year have practically been booked, the market, so far as any large business is concerned, is less active, but occasionally additional orders are received on the old basis of 1.25c. and upward, as to quantity and terms of sale, seaboard delivery for either foreign or domestic. A continued good jobbing business is in progress in spot parcels on the above basis for futures.

CAUSTIC SODA.—There is no abatement of demand, and the steady movement on consuming orders keeps the available spot stock exceedingly light. Scarcity of freight cars continues to prevent prompt shipments to a greater or less extent. Further orders have been placed for domestic high test for delivery over this year and 1906 on the basis of 1.75@1.80c., and 10c. higher for 60 per cent. f. o. b. works, as to quantity and terms of sale. Powdered continues in good request for prompt and forward on the basis of 2½c. and up to 3c., according to test, quantity and terms of sale.

SALT CAKE.—In addition to regular contract deliveries a moderate business is reported on the old basis of 65c. for bulk, according to quantity and terms of sale.

SAL SODA.—Conditions are practically as noted in previous reports. Deliveries on existing contracts are being made, and orders for additional stock are being booked for early fall delivery on the basis of .65c. f. o. b. works, or .70c. delivered in this section, less the usual discount terms. Concentrated for both prompt and forward is in demand on the basis of 1.40c. and upward, as to quantity and terms of sale. Foreign continued in request for October shipment at .85c.

MONOHYDRATE CRYSTALS.—Market steady with a good business in October and November deliveries on the basis of 1¼c. up to 1⅜c., as to grade, quantity and terms of sale, f. o. b Works.

Acids.

ACETIC.—Prompt deliveries continue in fairly good demand and a satisfactory business is in progress on the basis of 2.60c. and up, as to strength, quantity and terms of sale.

NITRIC.—Increased activity is still a prominent feature of the market, and October deliveries are moving more or less freely on the basis of 4¾c. for car lots in drums and up to 5c. for smaller quantities, and the usual advance of 1¼c. for carboys, on the basis of 36 deg., as to quantity and terms of sale.

MURIATIC.—Both prompt and forward deliveries are receiving increased attention and values are well sustained on the old basis of 1½c. and up, as to strength, quantity and terms of sale.

OXALIC.—There is no material improvement in demand for prompt, but additional business is noted for 1906 on the basis of 4⅞c. for German, 5c. for English and 5⅛c. for Norwegian.

TARTARIC.—Business is of average seasonable volume and the current requirements of consumers are being supplied at 29@29¼c. for crystals and 29½@29¾c. for powdered, as to quantity and terms of sale.

SULPHURIC. — Dealers report a steady improvement in demand for both prompt and deliveries over the balance of the year, and quotations are maintained on the basis of 1.20c. and upward for 66 deg., as to quantity and terms of sale.

Miscellaneous Chemicals.

ACETATE OF LIME.—Scarcity of freight cars continues to retard prompt shipments and consumers are becoming more or less anxious. Available supplies are light and consequently the tone of the market is firm, with makers quoting 1.60@1.65c. for brown and 2.35@2.40c. for gray, as to quantity and terms of sale. There is a good demand for both home consumption and export.

ALUM.—There is no change in the situation and deliveries on outstanding contracts are being made to consumers while the current jobbing demand is moderate. The ruling quotations are 1.75@1.80c. for lump and 1.85@1.90c. for ground, as to quantity and terms of sale.

ARSENIC.—Small jobbing parcels in second hands are held at 3⅛c. and upward, as to grade and seller, and the tone of the market is firm. French is offered for early shipment at 2.90c. and domestic at 3¼c., delivered in the gas belt. Red continues in fair request at 6¾@7c., as to grade and quantity.

ARGOLS.—A moderate jobbing business is in progress on the old basis of 2½c. for red and 4c. and upward for powdered, as to quantity.

BLUE VITRIOL.—Small lots in second hands are selling in a jobbing way at 5¼c. and up, as to seller and quantity. First hands continue firm in their views and hold at 5.35c. for car lots delivered, less the usual discount terms. Offers are made cautiously, as the outlook is considered favorable to higher prices.

BRIMSTONE.—Receipts of domestic are sufficient to meet consumers requirements and values continue steady at $22.12½ for delivery at New York, Boston or Portland, and $22.62½ at Philadelphia or Baltimore.

CHLORATE OF POTASH. — Spot stocks continue light, with prices firm at 8¾@9c. for crystals and 9@9⅛c. for powdered, as to quantity. Car lots for forward delivery are quoted at 8¼c. for crystals and 8⅜c. for powdered f. o. b. works, as to quantity and terms of sale.

CHLORATE OF SODA.—A fairly good jobbing inquiry is noted and the limited spot stock is firmly held at 9c. and up, as to quantity and seller. Car lots for October delivery are quoted 8½c. f. o. b. works, as to quantity and terms of sale.

CHLORIDE OF BARIUM.—The market retains a firm undertone and sellers continue to offer sparingly at $35 per ton and upward, as to quantity.

CHLORIDE OF CALCIUM.—Jobbing parcels on the spot continue in good demand at $10.50 per ton and up, as to seller and size of order. For October forward car lots are quoted at $7.50 per ton and up, f. o. b. works, as to quantity and seller.

CAUSTIC POTASH.—Future deliveries continue to receive attention, and additional contracts for next year have been entered on the basis of 5¾@6c. for new and 4¾@5c. for old process, as to test, quantity and terms of sale.

CARBONATE OF POTASH.—Quotations for prompt, and deliveries over the balance of the current year, are steadily maintained and some business has been done in calcined 80@85 per cent. on the basis of 8⅞@4½c. and 96@98 per cent. at 4⅝@5c., and hydrated 82@83 per cent. at 4@5c., as to quantity, seller and terms of sale.

CREAM OF TARTAR.—Small lots are in fairly good consuming request, and current wants of the trade are supplied on the basis of 23½c. for crystals and 23¾c. for powdered and upward, as to quantity and terms of sale.

COPPERAS.—An average movement is noted, and values are steady at the recent advance; car lots 57½c. for bbls.,

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" SALTS
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SILICATE OF SODA, ACETIC ACID, ACETATE OF SODA, SULPHIDE OF SODA, ETC., ETC.

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New York Works, Grasselli, N. J. **New York Office, 60 Wall Street**

and 62½c. for bags. Bulk remains unchanged at 47½c.

GLAUBER'S SALT.—In a jobbing way the movement continues satisfactory, with prices maintained at 40c. and upward, as to quantity, seller and terms of sale.

SAL AMMONIAC.—Further improvement is noted in demand for spot parcels, which are selling at 9¼c. and up for lump and 5¾@6c. for grain, as to grade and quantity.

SUGAR OF LEAD.—A continued active movement is reported, with prices ruling firm at 9⅛@9⅝c. for white and 7¼@7½c. for brown crystals, as to quantity and terms of sale.

SALTPETER.—Spot stocks of crude are reduced to small lots in second hands, for which 4.65c. is quoted. December arrivals are held at 4¼c. Refined is moving steadily into consuming channels at 4½@5½c., as to grade, quantity and terms of sale.

Whaling Industry.

IN THE NORTH PACIFIC.

Consul Smith, of Victoria, British Columbia, reports the establishment of a new whaling company on Vancouver Island, and says it is meeting with such success as has led others to investigate the field. He writes:—

One of the most important industries tributary to Victoria that has been established recently is the Pacific Whaling Company. It has built a fully equipped station at Sechart, Barkley Sound, Vancouver Island, and this season secured from Christiania, Norway, an up-to-date whaling vessel. The company was organized in Victoria last spring with a capital of $100,000. It erected at Sechart two buildings, one 50 by 50, the other 48 by 40, both two-story frame structures, each having big vats equipped with all modern conveniences for reducing whale carcasses to merchantable commodities. It employs nearly a hundred men. A new steam whaler was constructed in Norway specially for this company and is thoroughly fitted to hunt whales. As the first whaler owned in Victoria it attracted considerable attention. It registers 108 tons, is built of steel, 96 feet long by 11.6 feet beam. A small cannon on board is used for shooting the harpoon. Attached thereto is a grenade which explodes as the harpoon strikes a mark and kills the whale. Should the whale be not killed with the first onslaught, it is at least held by a very strong Russian hemp line 2,400 feet long and 5 inches thick. As soon as a harpoon enters the whale the windlass aboard the vessel is at once set in motion and the whale is draw in closer to the steamer until such time as another harpoon is fired and it has been killed outright.

An unsuccessful effort was made to get the vessel in free of duty. The company paid the customs, $4,983.50, or about 25 per cent. on value of vessel, machinery and appurtenances.

In less than a week after leaving port two large sulphur-bottom whales were captured, each weighing over a hundred tons. Inasmuch as whalers figure each sulphur-bottom whale (the most numerous species of whale in these waters) at $700, the net cost of handling being about $200, it is felt that a most important addition to the fishing industry of Vancouver Island has been inaugurated, as there is no doubt that large numbers of whales can readily be secured in this vicinity. The success of this whaling enterprise has attracted great attention along the coast, and it is stated that an American company has already applied for rights on the coast of Alaska, and still another on the Oregon coast. The entire west coast of Vancouver Island comes within the domain of the Pacific Whaling Company, of Victoria. It is reported that steps are being taken to incorporate another whaling company to operate in Queen Charlotte Sound and in the Gulf of Georgia, and that a whaling steamer therefor has already been ordered from Norway.

IN THE SOUTH ATLANTIC.

According to a long report from Consul Furniss, of Bahia, the waters of the South Atlantic are full enough of whales to make an investigation of them, for trade purposes, well worth while. Consul Furniss says the whaling waters run from Bahia to Assu, or from latitude 12½ south to latitude 18 south. The whales caught belong to the Baleanoptera musculus variety—a "whalebone" whale, hence valuable. Quite a large number of those caught will average 380 plates of bone. These bones, however, are short compared with the bones of the "right" whale. They run as long as 38 inches, although the consul says, "the largest I ever saw were 31.8 inches in length and 8.6 inches wide."

The whales attain a length at times of 67 to 70 feet. The consul measured one 51½ feet long and 9½ feet high. Its blubber was 10½ inches thick on back and sides. It yielded 4,121 quarts. The largest whale caught in recent years yielded 5,104½ quarts of blubber oil and 412 quarts of scrap oil. The consul has heard of whales 70 feet long.

The season begins as winter approaches the south pole. At that time the whales move northward and go back in the spring. They reach Bahia by the middle of May and have gone south again by November. In July, August and September the number is so large that the limit of the "take" is determined by the supply of boats. In some parts, off Itapoan and Assu, the season begins about the middle of July and is over by the first of October. No sperm whales are caught and few, if any, ever seen. Nor are "right" whales, so valuable for its bones, ever seen. In twenty years only three were ever known in the parts about Bahia.

The safest, cheapest and best method of hunting the whale—the American method—is not applied in the south. The people are far too conservative. In boats, equipment, methods of harpooning, frying the fat, etc., they have much to learn. One owner was induced by Consul Furniss to invest in an American harpoon gun. Experiments are being made with it this year. The consul thinks it will lead to a revolution in the whaling methods of that part of the world. The whole question seems interesting and attractive enough, from a financial standpoint, to justify investigation of the entire field. The crude way in which the hunting is done, the great losses consequent upon the inability of the people to care for the whales when caught, the crude way in which the fat is now fried, boiled or pressed out, the losses of bones, etc., would more than justify investigation by experts from the fishing sections of the United States.

London Linseed Market.

The small shipments last week, more restricted offers from shippers and the advance in oil caused a distinctly firmer feeling to obtain than has been the case for some time past, and a good business has been put through, partly for covering purposes. Calcutta sold at 6d. more money both for London and Hamburg, whilst for La Plata up to 1s. advance was paid for both Hull and the Continent; Bombay was about 9d. dearer. Yesterday the market opened firm and dearer, but closed distinctly easier for all descriptions. Linseed oil has advanced sharply this week, especially for January-April, in which position a large speculative business has passed; closing quotations are 20s. to 25s. up on the week. According to the table given below the arrivals of linseed at U. K. and Continental ports for the nine months to September have been about 350,000 tons smaller than in the same period of 1904, and there must consequently have been a large decrease in stocks of seed and oil as compared with a year ago, even allowing for a decrease in this year's consumption. So far as the U. K. is concerned, the shortage in linseed supplies has been partly made up by the increase in cottonseed imports, which have been about 70,000 tons more this year than last. The U. K. decrease in linseed imports to date, as compared with 1904, amounts to about 145,000 tons.

The quantity afloat is now 450,000 quarters, against 590,000 quarters at the corresponding date last year, whereas a month ago last year's quantity was nearly double this year's, viz., 690,000 quarters in 1904, against 375,000 quarters this year.

The imports of linseed into France for the eight months January to August amounted to 136,694 tons, being larger than in either the two years, viz., 121,899 tons in 1904 and 120,935 tons in 1903, whereas the imports into Germany during the same period were decidedly smaller than last year, and only slightly larger than in 1903, the figures respectively for the three years being 230,296 tons, 327,948 tons and 211,685 tons. The decrease in the German imports has taken place in the four months May to August, which amounted this year to only 98,626 tons, against 198,043 tons in the same four months last year, so that there can be but little doubt that stocks are now considerably smaller than on May 1 last.

If the final and revised estimate, to be received later on, confirm the preliminary official estimate of the area sown to linseed in the Argentine this year, and taking into account that some damage has been caused by locusts (as reported in the mail advices received this week), then we must expect less seed from the Plate in 1906 than we shall receive this year. On the other hand, it is very improbable that the weather in India will be so abnormally prejudicial as was the case in the present year, and it is very probable that the next Indian crop will more than make up for any shortage in the Plate.

The shipments from the Argentine to Europe this week were 8,500 tons, and since January 1 amount to 559,000 tons, against 843,650 tons in 1904 and 524,900 tons in 1903.

The shipments of linseed from India from April 1 to date amounted to 939,000 quarters (Calcutta 420,000 quarters and Bombay 519,000 quarters), against 1,835,000 quarters last season (Calcutta 1,169,000 quarters and Bombay 666,000 quarters), and 1,688,000 quarters in 1903 (Calcutta 1,112,000 quarters and Bombay 576,000 quarters).

From Russia and the Danube the exports of linseed from August 1 to September 23 amounted to 75,500 quarters, against 45,000 quarters in the previous year and 88,000 quarters in 1903.

The shipments of linseed from all countries last week amounted to 30,000 quarters for the U. K. (including orders) and 31,500 quarters for the Continent, together 61,500 quarters (against 57,000 quarters in the same week last year), making the total since January 1, 1,753,500 quarters to the U. K. and orders, and 2,811,500 quarters for Continent, together 4,565,000 quarters, against 2,420,000 quarters for U. K. and orders, and 4,247,000 quarters for the Continent total 6,667,000 quarters in the previous year.

The receipts of linseed at Bombay for the week ended September 7 amounted to 699 tons, against 754 tons in the previous week and 4,150 tons in the same week last year. The total receipts at Bombay from January 1 to September 7 have amounted to 143,491 tons, against 190,828 tons in the same period last year.—Beerbohm's Trade List.

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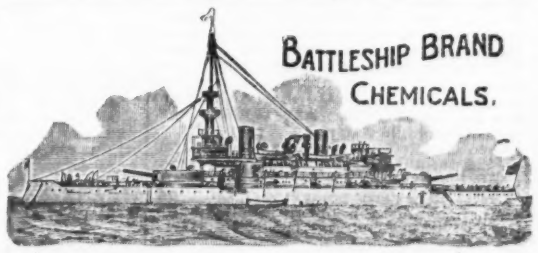

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FERTILIZER MATERIALS.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 33.

Saturday Noon, Oct. 14, 1905.

The demand for tankage and blood in the way of deliveries on outstanding contracts continues to be fairly brisk and shipments to the South and East accounted a good volume. Inquiries for parcels for prompt shipments for most of the feltilizer materials have been good, but additional new orders for the week are of a fair volume, but show a falling off, compared with those for last year.

There has been no special attention paid to futures and buyers are holding back longer than usual. It is expected, however, that active trading in futures will commence soon, and prospects for a large business are promising. Nitrate of soda continues to show an upward tendency with slight advances and there are indications for higher prices in the future. Phosphate rock shows decided strength and an advance is looked for. Conditions governing potashes and phosphates remain unchanged and no price changes have been recorded.

Ammoniates.

SULPHATE OF AMMONIA.—The market has strengthened and prices for parcels in all positions have been advanced. Recent advices from Europe note that the firmness of the market has continued, with further advances in prices in all positions. Quite a large business has been done in London recently, with known sales as high as £12.15s. for 25¼ per cent. naked at the London works for October-March delivery, which price is equivalent to $3.20 New York for 25 per cent. This sale was an exception, however, because the test was about 25¼ per cent., and the allowance permits of it being shipped to countries where 24 per cent. minimums are accepted. It is intimated that no business for this year can be done under $3.13 basis New York, and the premium for Spring delivery is much higher. In the domestic article trade continues to be listless, but an increase in the demand during the next month is looked for. It is intimated that prices close to the basis of values for foreign will be obtained when the usual fall and winter demand sets in. Parcels for prompt delivery could have been obtained at a shade below prices named for foreign. The undertone to the market has improved and in the absence of selling pressure and moderate stocks, holders are not anxious to make trades, they expecting higher prices. The market closed firm, with parcels of foreign on the spot and for prompt shipment quoted at $3.13@3.16, and futures at $3.16@3.18 per 100 pounds. Domestic on the spot and for prompt delivery is held at $3.13@3.16 and futures at $3.16 @3.18 per 100 pounds.

FISH SCRAPS.—Reports on the menhaden fishing from the North and South note poor catches, and a decrease of about 30 per cent. in this season's output of scrap is looked for.

The withdrawals of supplies of dried scrap on outstanding contracts have been large. Parcels of domestic are held at $2.50 and 10c. for 10 per cent. bone phosphate per unit, and acidulated wet at $2.25 and 35c. for 6 per cent. of ammonia per unit, f. o. b. fish works. Imported fish guano remains firm but quiet, at $2.70 and 10c. for dried, 10 to 11 per cent. ammonia and 15 to 17 per cent. phosphate per unit, c. i. f., New York, Baltimore or Philadelphia, but buyers here are indifferent, they claiming that prices are too high to admit of business.

TANKAGE.—Inquiries continue to be fairly good and sales of parcels of 200 tons and upward for prompt and forward shipment at the quoted range of quotations, according to time of shipment, f. o. b. Chicago, have been made. Packers are very firm and are quoting parcels 10 to 11 per cent. and 10 to 15 per cent. tankage, $2.25 and 10c., f. o. b. Chicago. Parcels of high grade concentrated tankage, 15 to 16 per cent., are held at $2.15@2.20 for 10-11 per cent. and 10-15 per cent. $2.25 and 10c., and 10-15 per cent, $2.25 and 10c., and $16@17 for 7 and 30 per cent. per ton, all acording to time of delivery and terms of sale.

GARBAGE TANKAGE.—We hear of no contract sales of importance. Shipments on outstanding contracts continue on a good scale. Quotations remain unchanged at $8@9 per ton, according to quality, quantity and point of shipment.

DRIED BLOOD.—There continued to be good inquiries particularly from Southern points, and fair quantities for prompt and forward shipment at the quoted range of prices have been traded in, embracing parcels of 250 tons and upward. Packers remain firm and are quoting $2.40@2.45, f. o. b. Chicago, and parcels at 12-13 per cent. ammonia at $2.60@2.65 per unit, f. o. b. New York, according to quantity and time of delivery, etc.

NITRATE OF SODA.—Prices are firmer in tone and quotations show a slight advance with a further upward tendency and probable further rises in the future. This strong undertone, is attributed to the heavy demand from Europe and in part to the scarcity of labor and also of water on the West Coast, which is causing some apprehension to numerous manufacturers, as they may be rendered unable to meet the call for supplies allowed them by the combination. Under limited offerings due to light available supplies for prompt delivery, sales have been light at $2.17½. Parcels to arrive during October to December are held at $2.22½. For the first four months of 1906, sellers are quoting $2.22½, and for the first six months of 1906 parcels were obtainable at $2.20, while for the entire year of 1906, $2.15 has been asked. For the entire twelve months of 1907, parcels could have been purchased at $2.02½ per 100 pounds. All of the above quotations are for 95 grade. Ninety-six grade is quoted 2½@5c. higher. Parcels of 95 grade on the spot are held at $2.17@2.20, and futures slightly higher at $2.20@2.22½ per 100 pounds. For 96 grade 2½@5c. per 100 pounds higher is named.

PYRITES.—Additional small sales of parcels afloat at about current prices have been traded in. We hear of no large transactions. Shipments on outstanding contracts were of a good volume. Quotations remain unchanged for parcels of Spanish crude unwashed fines, averaging 48 to 52 per cent. of sulphur, at 9@10c.; Spanish smalls washed ore, 7@8c., and lump ore, averaging 48 to 52 per cent. of sulphur, at 10@10½c.; lump non-arsenical nigh grade ore at 11@12c., arsenical lump, not washed, 10 @11c.; all per unit ex ship. Parcels of domestic are held at 9½@10c. for fines averaging 45 per cent. sulphur and 10¼ @11c. for furnace size, averaging 45 per cent. of sulphur per unit, f. o. b. shipping port.

Phosphates.

ACID.—Under a seasonable demand and steady withdrawals on outstanding orders, prices are firm at 60@67½c. per unit, according to quantity and point of shipment.

BONES.—Occasional sales of carload lots at current quotations are being made. For some bones there is a good inquiry, but business in most instances is being held in check, because of the high prices asked by collectors. Parcels of steam ground and unground bones are in good request, which resulted in fair sales of carload lots at current prices. Carload lots of steamed, 3 per cent. ammonia and 50 per cent. bone phosphate, are quoted at $23 and upward, and 1½ per cent. ammonia and 50 per cent. bone phosphate at $19 and upward, according to terms of sale. Unground steamed is quoted at $18 and upward. Hard boiled was held at $20 and upward. Carload lots of open kettle boiled bones are scarce and quoted at $20@21 per ton, basis New York freight. Country kettle rendered is quoted at about $23 delivered. Carload lots of oil bone-black discards are held at $12 upward, and sugar discards at $16 and upward, all according to quality, quantity and terms of sale.

PHOSPHATE ROCK.—Prices remain firm in tone under good inquiries and a steady call for supplies on outstanding orders. Parcels of hot air dried Charleston rock remain firm at $4 per ton f. o. b. Ashley River. The comparative exports on crude phosphate rock and acid phosphate from the port of Charleston from Sept. 1, 1905, to Oct. 6, 1905, were as follows:—

Shipments to—	1904—1905 Crude.	1904—1905 Acid.	1903—1904 Crude.	1903—1904 Acid.
Baltimore	....	....	3,329	7,188
Norfolk	....	....	....	2,381
Weymouth	....	....	1,201	....
Cartaret	....	....	3,356	....
Totals	....	....	7,885	9,569

Potashes.

Conditions governing this market have not changed and aside from occasional sales of parcels by independents and the usual movement of supplies on outstanding contracts, nothing of interest has occurred.

MURIATE.—Additional sales of parcels for prompt and future delivery at prices below current quotations by independent miners have been made. Quotations otherwise are stationery, and spot parcels of muriato of potash, testing 80 per cent., sellers are quoted $1.95@1.98, and futures at $1.90@1.93 per 100 pounds, according to point of shipment. Manure salt, 20 per cent. actual potash, is stationary at $14.75@15.40 per ton of 2,240 pounds, and double manure salt, 48 per cent. at $1.16@1.19½ per 100 pounds, according to point of shipment.

SULPHATE.—Moderate parcels for prompt and future shipment at and below current quotations by independent miners are reported. Quotations remain stationary on parcels, basis 90 per cent. testing minimum 90 per cent., at $2.18@2.21½ per 100 pounds, according to point of shipment.

KAINIT.—Reports are current to the effect that sales of small lots for prompt and future delivery at and slightly below quoted prices, are still being made. Quotations are stationary for supplies in bags at $9.50 and in bulk $8.50 for shipment to the South or North, invoice weight per ton of 2,240 pounds.

(Special Correspondence to the Reporter.)

Baltimore Fertilizer Market.

Baltimore, Oct. 12, 1905.

AMMONIATES.—The demand during the past week was fairly active, inquiry being confined almost entirely to future deliveries and the close, prices are firm and the tone of the market strong. Quotations are firm for ground tankage, 7 and 30 per cent., at $17.25 per ton; ground tankage, 11 and 15 per cent., at $2.20 and 10c. per unit; unground tankage, 9 and 20 per cent., at $2.10 and 10c.; ground concentrated tankage, at $2.15; ground blood, at $2.40@2.42½; all f. o. b. Chicago. Crushed tankage, 9 and 20 per cent. (futures), at $2.55 and 10c.@2.60 and 10c., c. and f., basis Baltimore.

NITRATE OF SODA.—The past few days the market has been strong and excited, with an upward tendency. In the absence of definite inquiries, it would be difficult to quote prices.

(Special Correspondence to the Reporter.)

Charleston Fertilizer Market.

Charleston, Oct. 12, 1905.

There have been no changes in the prices of fertilizer material this week. The market remains quiet and the movement is small.

SULPHATE OF AMMONIA.—The inquiry for this article is, as has been recently, light. The prevailing quotation is $3.15 per 100 pounds, for fall delivery, guaranteed minimum 25 per cent. of ammonia, cost and freight at Charleston.

FISH SCRAP.—The market remains firm. The schooners Edgar C. Ross and Twilight are coming to the port with cargoes. The quotation for future delivery from October to December are, for acid fish, $2.47½ and 35c.; for dried fish, $2.65 and 10c.

TANKAGE.—The market remains firm, with an advance in price. The existing quotations are $2.77½ and 10c. per unit of bone phosphate delivered at Charleston during 1905.

DRIED BLOOD.—The market remains firm. The prevailing quotation for this article is prompt, $2.77½; future, $2.80.

GARBAGE TANKAGE.—There has not been a change in the price of this commodity. The quotation that now exisits is $2.37½, 10c. and 70c. The schooner Waccaman arrived here from New York with a cargo yesterday.

NITRATE OF SODA.—The large British bark Thistlebank when last reported had left Iquique July 25 and arrived at Caleta Buena. Although reported for Charleston, it is probable she will proceed to Savannah. The present quotation is $2.18½ per 100 pounds, ex vessel at Charleston, for deliveries from October to January. Spots are selling at $53 cash per ton of 2,000 pounds.

PYRITES.—The prevailing quotations are $5.50 per ton of 2,240 pounds for lump and $4.75 per ton for fines, ex vessel at Charleston. The steamship Adva is on her way to this port with a cargo from Huelva and the steamship Buckminster is coming with a cargo from Pomaron.

ACID PHOSPHATE IN BULK.—The movement of this article has not yet begun. The price is now $9.25 per ton of 2,000 pounds, free on board at Charleston, immediate shipment C. A. D.

SULPHATE OF POTASH.—There has been an advance in the price of this article. The present quotation is $2.21½ per 100 pounds, ex vessel at Charleston, basis 90 per cent. The market remains quiet.

DOUBLE MANURE SALT.—The market continues to remain inactive, although there has been an advance in price. The quotation now prevailing is $1.18½ per 100 pounds, ex vessel at Charleston, guaranteed 48 per cent.

MURIATE OF POTASH.—The price of this article remains the same as previously, the existing quotations being $1.93 per 100 pounds, ex vessel at Charleston, basis 80 per cent.

MANURE SALT.—The condition of this article is quiet. The prevailing quotation is 20 per cent. $15.25 per ton of 2,240 pounds, ex vessel at Charleston, in bulk.

KAINIT.—There has not been an arrival of a vessel at this port with kainit this week. The prevailing quotation is $8.50 per ton of 1,016 kilos (2,240 pounds). All potashes are ex vessel at Charleston, foreign invoice, weights and analyses. The steamship Salfordia is coming to Charleston with a cargo from Hamburg.

PHOSPHATE ROCK.—The market continues to rule strong, and $4 is now the ruling price. There seems to be a scarcity of stock at the present time, and the market is strong. It is probable that rock will advance in price to $4.25 before Jan. 1, for the demand is active. There is no good reason why rock should not advance within twelve months to $4.75 per ton. This article has been selling at a very close margin and miners are realizing that they should have better prices. The cost of mining has increased and conditions do not warrant any decline in values. The bark Baltimore is now landing at this port with phosphate rock for Baltimore.

☞For Fertilizer Report from Chicago see index on page 22.

The space given by the Farm Papers to inquiry and discussion of the merits of
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Proves that Fertiliser Users are demanding goods containing more Nitrate and are buying Nitrate to add to "Complete Fertilizers." It is also the
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SULPHATE OF AMMONIA AND OTHER CHEMICALS.

(Special Correspondence to the Reporter.)

Bahama Sponge Fisheries Closed.

Nassau, Bahama Is., Oct. 4, 1905.

During the last quarter the sponge catch was rather poor, owing to the unsettled state of the weather, and the Nassau fisheries board has ordered the closing of the Abaco sponging grounds, the oldest and best producers of the Abaco sheepswool and velvet, noted for its fine quality sponges. These marine sponge farms will now experience a rest and have a chance to recuperate. The grounds and sponging beds off Deadman's Cay have also suffered from over-working and being in a denuded state have also been closed. The fisheries board was formed to combat certain evils in the gathering of sponges and to protect the industry in various ways, and has done excellent work. At present, the Nassau sponge fleet is laid up, owing to hurricane months, but November will see crafts being refitted and sailing for such territory as is still open for sponge hookers.

From Florida word comes that the colony of Greeks is being augmented by new arrivals of expert divers. Some success has been the result of various trips of this new system of sponge getting. A cargo that had been obtained by diving recently sold for $9.00 a bunch. The sponges had been fished from deep water and were very large, none being smaller than the top of a flour board. These will have to be converted into "cuts," or coupe vehicle washing sheepswool, to be a merchantable size. By old method of hooking by a long pole, operations are confined to a depth not exceeding 40 to 50 feet. The divers go into greater depths, and obtain valuable and large sponges, endeavoring to detach from ocean's bed the prized Rock Island sheepswool which always commands the highest price of all sponges grown in Florida waters. Great monstrous sharks and Jew-fish, the Greeks state, come about them, but no case is yet reported of any divers being attacked by the sharks, which are very numerous.

The Schist Oil Industry in France.

The manufacture of schist oils had its origin in the neighborhood of Autun in the Department of Saone-et-Loire. Laurent de Reichenbach was the first who undertook researches in France on bituminous schists; this was about 1830. Selligue followed and in 1839 succeeded in purifying oils produced by the distillation of the bituminous products of Autun, deriving from them oils suitable for lighting purposes. The distillation in Scotland was commenced in 1845. In 1848 Vohle introduced the industry in Germany, and in 1850 Young established in England a special factory for the extraction of paraffine.

The schists, formerly of little value, are to-day the object of an extensive industry in France. Besides the small deposits in the Departments of Var, Puy-de-Dome and the Basses-Alps, the principal exploitations are those of Buxieres-les-Mines, commenced in 1858, and those of Autun, commenced in 1862.

From a geological stand-point the bituminous schists of Buxieres and Autun belong to the permian period. In each locality the layer of schists is attended with a lower stratum of coal.

The schist is a black amorphous and cleavable mass—its density is about 2; it is insoluble in the neutral solvents. Besides the hydro-carbides which it contains it has a composition similar to that of clays. Submitted to the action of heat in a closed vessel, the schist distills and yields gases, hydro-carbides of the density 0.870 to 0.910, and ammoniacal waters. This is especially the case with the Scotch schists.

Although the yield of a distillation test of a few kilograms of schist may be different from those obtained industrially, it may be well to indicate the limits between which the results obtained by Vohle vary for the different substances treated.

	Density.	Liters.
Light oil	0.820	0.9 to 5.4
Heavy oil	0.870	0.7 to 8.1
Paraffin	....	0.01 to 0.25
Creosote	....	1.2 to 4.8
Ammoniacal waters	....	7.60 to 40
Coaly residues	....	44 to 46.3
Gas and loss	....	3 to 11.8

The schist manufacture includes two distinct series of operations, of which one is designed for the production of the crude oil by its extraction from the raw material, while the second consists in treating the crude oil in order to draw from it the commercial products.

Industrially considered, a variation of one per cent., more or less, in the quantity of crude oil produced is an essential point, and thus the reasons can be comprehended why manufacturers are obliged to modify their material, and why it is important to watch over all the circumstances which may cause the yield to vary. Among those exercising great influence must be mentioned the selection of the raw material, the mode of distillation, and the manner in which the operation is conducted. The results vary considerably, according as the operation is performed with more or less rapidity; that is, according as they are strictly connected with the temperature of decomposition.

In 1871 the processes of distillation and rectification of the oils obtained varied in the different factories. Fixed vertical retorts, heated with coal, were principally used, yielding on the average 5 liters of crude oil per hectoliter of schist, or by revolving ovens, heated with coal, and having a lateral fire-chamber according to the Malo system, which yielded on the average 6 liters of oil per hectoliter of schist.

Since that time, in attempts to economize the combustibles, changes have been made in these processes. The schist still retaining a certain quantity of carbureted products. It is utilized in France for heating the distillation retorts, which for accomplishing this purpose have nearly all the same form.

DISTILLATION OF SCHISTS.

This is effected in vertical retorts of about 15 hectoliters in capacity, grouped in series of 12 to 24, within walls of masonry, of which the upper part is on the same plane with the floor of the shop where the schists are broken up. These are brought in from the mines on cars and reduced to pieces of the desired size.

The apparatus is of cast-iron 0.03 meter in thickness; it has the form of a parallelipiped 1.55 meters long by 0.85 meter wide, and terminated at the lower part by a reversed truncated cone. It has two openings at the upper part, one 0.32 meter wide, serving to charge the schist in the retort, the second for the evacuation of the products of distillation. Another orifice 0.40 meter wide serves for the discharge of the distilled schist. Each of the retorts has a chimney, and a fire-chamber directly below it, as well as condensing apparatus, with which it is connected by a swan's neck. As they are independent, they can be worked separately.

At Buxieres and Autun the distillation not being pushed to the expulsion of all the carbureted matter, the schist itself is utilized as combustible. The 9 or 10 per cent. of carbon, represented by the bituminous matter and coke proceeding from the decomposition of the heavy carbides by the heat, serves for the distilling of the following charge of bituminous schist. For this purpose over the vault of the fire-chamber a register of fire clay, 0.15 meter in thickness, is made to slide into an opening 0.70 meter by 0.55 meter, allowing of the discharge of the retort into the fire-chamber.

The fire-chamber, of fire-proof brick, is 1.50 meter in height, and of section 1.10 meter by 1.05 meter.

The vault has six other openings for the passage of the combustion gases, which are conducted by flues for heating the retorts laterally, which for this purpose are protected by fire-proof pieces, 0.05 meter by 0.06 meter in thickness, in order to avoid, especially during the period of charging, sudden variations of temperature. In front of the fire-chamber there is an opening of 0.30 inches for leveling the distilled schists. The lower part of the chamber is closed by a door, which can be opened after the distillation, so as to withdraw the burned schist in dumping cars of the capacity of the retorts.

Registers placed in the chimney regulate the combustion of the schist in the fire-chamber. The chimney is divided into two flues, corresponding with those on each side of the retort.

In general, the distillation works are in proximity to the mine, in order to diminish as far as possible the expense of transporting a dead weight represented by 65 to 90 per cent. of residues. On coming from the mine, the schist is assorted, then broken, either by hand or by a mechanical operation, into fragments of the size of the double fist. The extent of the division of the matter plays an important role. Although the heat penetrates slowly from the exterior to the interior, it is propagated with much less advantage when the substance is pulverized too much. Too fine a product, besides increasing the hand-work necessary for pulverization, would cause bad results as the combustible after its distillation.

When the distillation of a retort is terminated, a new operation is conducted in the following manner:—Before discharging, the registers of the chimney are opened, and the car brought under the retort; then the door at the bottom of the fire-chamber is opened, and the schist falls out, which, after its distillation, has served for heating the following charge. A workman, drawing the register, then opens the bottom of the retort, and with the aid of an elbowed fire-iron, causes the fall of the schist distilled into the fire-chamber. Another workman, standing on the platform of the mason-work, afterwards opens the orifice at the top and makes sure that the retort is emptied. After closing the register, which he makes tight by emptying into the retort one or two wheelbarrows of coal ashes or of fine burned schist, he introduces a new charge of schist, leveling it off so as to lose as little room as possible. The orifice is closed by luting a mixture of clay and sand. The mass of the retort being at a high temperature, the decomposition of the schist commences as soon as it is placed in the oven.

Besides the distilled schist, the fire-chamber is also fed with incondensable gases, so that, when once lighted, a retort continues heated for several months in succession.

A complete distillation lasts on the average twenty-four hours. During the first hours of distillation only water vapor passes over, then a mixture of water and ammoniacal products, which are condensed in a worm surrounded with cold water and conducted on to a reservoir. Afterwards, the oil commences to distill, the quantity of watery vapor diminishes, and in about twelve hours the stream is entirely oily. It continues to flow for eight or ten hours, and then the proportion of oil diminishes, and the water reappears. The operation is complete when oil no longer passes, which requires some hours longer. Then the retort is emptied and re-charged for a new distillation.

At the outset of distillation the draught-registers of the fire-chamber are generally opened for two hours, and when the distiller judges that the necessary temperature has been attained, he closes the registers completely, and gives attention only to the stream and the separation of the oil from the water. The oil is conveyed into measuring vats placed at a level lower than the separators.

The ammoniacal water, containing too little ammonia, is of no value. The oils are conveyed into special reservoirs. The gases not condensed and formed in greater part of hydrocarbides, are collected in a receiver and serve for heating the retorts or the generators working the pumps in other parts of the factory.

A cubic meter of broken schist, varying in weight from 1,000 to 1,250 kilograms, yields generally on distillation:—45 to 58 liters of crude oil, of density 0.890 to 0.902; 59 to 60 liters of ammoniacal water, and 24 cubic meters of gas. The schists of Buxieres, and particularly those of St. Hilaire, yield a crude oil in greater amount than those of Antun, as much as 65 liters.

The yield in ammonia water and crude oil varies, not only according to the conditions of distillation, but also according to the nature of the raw material. A desiccated schist, in consequence of too long exposure to the air, will furnish less yield in ammonia water and oil. Abandoned to the air, the residues break up and may be used as a fertilizer.

The duration of the distillation retorts is about two years. Their cost is 25 francs for 100 kkgs. The retorts of 15 hectoliters for 2,800 kgs. of schist, cost, therefore, 700 francs.

RECTIFICATION.

The crude oil, of average density 0.875, is charged in the boilers of the first distillation to the extent of two-thirds. These boilers are formed of a horizontal cylinder of sheet iron 3.20 meters in length by 1 meter in diameter, placed at a certain height above the grate, and protected from the fire-bursts of the chamber by an arch of masonry constructed above it. At the lower part the boiler has a tube provided with a tap, serving for emptying the residues of distillation, which are sent into a special vat. A manhole is made on the top of the boiler for the purpose of cleaning it. A second orifice serves for introducing the charge of crude oil. At the upper part a swan's neck is fitted to it, which conducts the vapors into a lead worm 40 milimeters in inside diameter, placed in a cylindrical reservoir, in which a current of cold water circulates during the period of distillation, on the average forty-eight hours.

The products of distillation are fractionated by means of vats having a capacity of fifty liters and communicating by pipes with special reservoirs placed in the rectification shop. Usually, this process is pushed until there remains in the retort only a coaly residue, which is coke. In certain cases, however, the operation is arrested sooner, and a black consistent mass is drawn from the retort, which may be advantageously employed in the preparation of agglomerates.

From a charge of 6,000 liters of crude oil, of average density 0.875, two products of fractionation and a residue of tars are drawn off at Saint-Leger near Autun. The tar and one of these products are sold without any other treatment. The first oil is purified with acids and soda to decolor it, and to decompose the sulphurated products, which communicate to it a repulsive odor.

PURIFICATION.

The sulphuric acid and the solution of caustic soda not being dissolved in the oil with which they are mixed, to increase their action it is necessary to submit them to energetic mechanical agitation. This is effected in closed vats. For this purpose different systems have been employed or proposed. In the Jakobi apparatus the bottom of the vat is arranged in the form of a half cylinder, in which moves a horizontal shaft carrying paddles.

The Hubner apparatus has an arrangement similar to that employed in the manufacture of butter. A plate perforated with holes, of which the size is nearly equal to the diameter of the vat, receives an alternating movement. The liquids are forced through the orifices of the paddles and are consequently mingled thoroughly.

Goulde in his apparatus has entirely omitted the agitator. The purifyer consists of a vat divided in two parts by a partition, which descends only to a certain distance from the bottom of the vat. The acid or alkali is poured in up to a height sufficient for preventing communication between the two parts of the vat. If the oil is then introduced into one of the compartments it will pass, on account of its weight, into the second compartment, traversing the layer of acid. A pump then takes it up and sends it back into the first compartment, so as to produce a rapid circulation.

The apparatus now generally employed in France for purifying schist oils is of rectangular form with a cylindrical bottom. It is arranged in two different stages, so that those of the upper level, which serve for treatment with acid, may by a simple tap be poured directly into the lower compartment, where they are washed with water and soda. The apparatus is composed of sheets of steel from 4 to 7 milimeters in thickness. It has a capacity of 3 cubic meters, and has two taps, one situated at the bottom of the apparatus for the flowing-off of the acid or alkaline residues; the other, above, serves for emptying the oils. The liquid is agitated by two horizontal drums, worked by a vertical shaft, which causes them to turn in opposite directions.

The oil, to be purified, is conducted into the apparatus by means of pumps. The agitator being set into motion, one per cent. in volume of sulphuric acid, of the strength of 66 degrees Beume, is introduced. After thirty minutes of reaction it is allowed to deposit for some time and then the acid tars are drawn off. A new treatment follows with an equal quantity of acid for the same time. After deposition and drawing off the tars, the oil is conducted into the lower inclosure, where it is first washed with water injected under strong pressure. The wash-water is decanted, renewed, decanted again, agitated with one per cent. in volume of caustic soda of 36 degrees Be, and finally washed with cold water until that which falls in rain on the oil comes neutral from the apparatus.

The total duration of the operation is three hours; 86 to 87 per cent. of No. 1 oil is drawn off; that is, with 13 or 14 per cent. of loss. Oil No. 1 is re-distilled in boilers of the same form, but of greater capacity than the first. The charges are of 100 hectoliters, and still yield two fractionated products and a residue. The yield per hectoliter of No. 1 after a distillation of sixty hours is the following:—

	Density.	Liters.
No. 2 lamp oil	0.810	68
H, heavy oil	0.868	21
Tars	0.900 to 0.910	10
Loss	.....	1

Oil No. 2 is purified with one per cent. of acid and one per cent. of soda in volume; 95 per cent. of commercial lamp oil No. 2 is drawn off, of density 0.806; the difference, 5 per cent., consists of tars.

Oil H, before being re-distilled, is purified with 1.5 per cent of acid and 0.5 per cent. of soda. It then loses 9 per cent. Its distillation yields three fractionated products and a residue of tar.

No. 3, heavy mixed oil, 0.840 density, 42 liters.

No. 4, heavy oil for illumination, 0.860 density, 30 liters.

K, light-colored oil, 0.870 density, 60 liters.

Tar, 0.960 density, 10 liters.

Oil No. 4 is sold as it is. Oil No. 3 is washed with 1.25 per cent of acid and 1 per cent. of soda. It yields 94 per cent. of oil, of density 0.835, which is mixed with oils No. 2, so as to produce ordinary lamp oil, of density 0.815.

Oil K is purified with 1 per cent. of soda only and yields 95 per cent. of heavy oil of density, 0.868.

In fine, there are obtained per hectoliter of crude oil, of density 0.875, submitted to rectification and purification, the following products:—

	Density.	Liters.
No. 2, No. 3, ordinary lamp oil	0.815	80 to 50
No. 4 heavy lamp oil	0.860	2.88
K, heavy lubricating oil	0.868	1.50 to 29.38
B, residuary oil	0.895	25
C, tars	0.960	20
Loss	....	14.15

(Special Correspondence to the Reporter.)

London Drug Auction.

London, Sept. 29, 1905.

Large supplies of new and old goods (first and second hand parcels) were brought forward at the drug auctions on the 28th inst., which met, on the whole, a slow demand. The chief supplies were of cardamoms, which obtained firm to 1d. per lb. dearer prices of gum asafoetida, selling at lower rates, and of Tinnevelly senna realizing fully previous values. Cascara sagrada shows no change. Cape aloes were slow at previous rates, and of Curacao aloes no sales could be brought off. Buchu leaves are quiet but steady. Coca leaves were well competed for and obtained firm rates. Colocynth pulp was almost given away at the price it sold at, and Colombo root is easier inclined for common, owing to arrivals. Dragon's blood is neglected for the moment, but prices are firm. Ergot of rye is quiet. Gamboge is scarce and dearer. Gum benzoin is rising. Gum euphorbium is lower. Ipecac is higher for Rio, but easier for Minas. Gum myrrh continues in good demand at firm rates. Menthol crystals have further advanced. Peppermint oils are rising. Rhubarb is about unchanged and in restricted demand. Gray Jamaica sarsaparilla has obtained increased prices, and beeswax is very slow. The following table shows the offerings, sales and prices realized for the leading articles:—

	£ s. d.		£ s. d.
Aloes, Cape, cs, 31o 22s.			
good hard bright, cwt.	0 24 6	@	0 25 0
partly softish and drossy.	0 20 6	@	0 22 6
Annatto seed, bgs, 14o 4s.			
fair bright Madras, lb.	0 0 7		
Argol, bgs, 37o 37s.			
gray dusty Cape, cwt.	0 40 0		
Buchu leaves, blo, 46o 2s.			
fair greenish short round, lb	0 0 6		
Cardamoms, pkgs, 463o 158s.			
Mysore, good extra bold	0 1 9	@	0 2 2
fair	0 1 4	@	0 1 6
good bold	0 1 2	@	0 1 3
fair	0 0 11½	@	0 1 0
good medium	0 0 9½	@	0 0 10
fair	0 0 9		
good small	0 0 8½		
fair	0 0 8		
good splits, brown, etc.	0 0 9½	@	0 1 2
fair	0 0 8	@	0 0 8½
good seeds	0 0 11		
fair	0 0 10	@	0 0 10½
Malabar seeds	0 0 10		
shells	0 0 3		
Cascara sagrada, 1903 bark, bgs, 120o 120s.			
fair but darkish, cwt.	0 0 28	@	0 29 0
Coca leaves, pkgs, 34o 29s.			
Ceylon, Huanoco, good green, lb	0 1 3	@	0 1 4
brownish	0 1 1	@	0 1 2
damaged	0 0 5½	@	0 0 8
Colocynths, cs, 32o 11s.			
Persian pulp	0 1 5	@	0 1 5½
Colombo root, bgs, 140o 50s.			
fine natural very bold sorts, cwt.	0 29 0	@	0 30 0
fair sorts	0 21 0		
dullish	0 18 0	@	0 19 6
damaged	0 12 0	@	0 16 0
Cuttlefish, pkgs, 127o 20s.			
fair medium unsorted bone, lb	0 0 3		
Dragon's blood, cs, 46o, 2s.			
good bright rebolled lump, cwt.	8 5 0		
Galiants, bgs, 4o 4s.			
damaged Aleppo, according to quality	0 36 0	@	0 56 0
Fennel seed, bgs, 258o 80s.			
damaged	0 0 0	@	0 14 6
seacopings and practically rotten	0 1 0	@	0 2 6
Gamboge, cs, 5o 5s.			
very damp and blocky Siam pipe	14 0 0		
Gum, asafoetida, cs, 446o 284s.			
common earthy and stoney block	0 5 0	@	0 11 6
fair ordinary to good	0 32 0	@	0 52 6
Gum, benzoin, cs, 111o 25s.			
good fair second Sumatra	7 10 0	@	7 15 0
fair thirds	5 12 6		
common	5 7 6		
grey block Siam pickings	0 80 0		
ordinary barky Palembang	0 30 0		
Gum, euphorbium, serous, 16o 16s.			
fair Morocco	0 12 0	@	0 16 0
damaged	0 5 0		
Gum, myrrh, pkgs, 44o 12s.			
fine pale picked	7 0 0		
good sorts	0 92 6		
Ipecac, bls, 24o 4s.			
Mattagross, 1 sale before the auction			
Minas (3) mouldy and thin	0 6 11		
Kamala, cs, 6o 1s.			
dull red, lb	0 0 6		
Menthol crystals, cs, 25o 25s.			
Kobayashi (25) sold before the auctions after having been advertised to be disposed of W. R. Yazawa (19)	0 7 10½	@	0 8 0
Musk seed, cs, 1o 1s.			
good, subject to sellers' approval	0 0 3½		
Lime oil, cs, 16o 14s.			
distilled West Indian	0 1 7		
Peppermint oil, cs, 9o 9s.			
dementholized Japan, Kobayashi	0 4 4½		
Orange peel, cs, 30o 5s.			
dark to fair pale strip, lb.	0 0 4	@	0 0 4½
Orris root, bgs, 78o 58s.			
fair Florentine, cwt.	0 17 6	@	0 19 0
Rhubarb, cs, 84o 25s.			
Shensi, medium round fair pinky fracture, lb	0 2 3	@	0 2 4
Shensi, medium flat	0 2 4		
good druggists' trimming slightly wormy	0 2 10		
Canton, medium round fairly pinky fracture	0 1 3		
druggists' trimming	0 1 3		
high dried, medium flat middling quality	0 1 2		
small round rough horny	0 0 9½		
Sarsaparilla, bls, 26o 11s.			
fair sound grey, Jamaica	0 1 6		
slightly damaged	0 1 5	@	0 1 6
native Jamaica, according to quality	0 0 8	@	0 0 10
Scabiac, bgs, 60o 8s.			
fair free Madras, cwt.	0 95 0		
Scammony, bxs, 2o 1s.	0 22 0		
Senna, bls, 989o 987s.			
Tinnevelly, common damaged to ordinary, lb	0 0 ½	@	0 0 1¼
speccy greenish	0 0 1½	@	0 0 1¾
fair green	0 0 2	@	0 0 2½
pods	0 0 1	@	0 0 1¼
Squills, bgs, 19o 2s.			
fair ordinary	0 0 1½		
Tamarinds, pkgs, 9o 4s, cwt.	0 16 0		
Wax, bees', pkgs, 590o 20s.			
Jamaica, good to fine 4	8 0 0	@	8 5 0
East India, fair Bombay	5 6 2 6		
Madagascar, good 7	7 0 0		
Grenada, fine bright 4	8 5 0		

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Pan-American Exposition, Buffalo, 1901.

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DYE MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 33.

Saturday Noon, Oct. 14, 1905.

The week has brought no material improvement to the general condition of the market, and while the movement along jobbing lines is of usually satisfactory proportons, there is little to prompt animation in the extent of the demand. No new developments are to be noted with reference to next year's selling conditions. Acetate of soda is steadily maintained. Primary reports indicate a firmer tendency for egg albumen. Aniline oil and salt are without new interest. Little mat catch is available on spot. Gambier continues easy for shipment, but spot conditions are without late change. Vegetable indigo is reported firmer abroad. Aleppo nutgalls are nominally steady. Sumac reflects an improving tendency, with high grade goods commanding more buying attention. Corn starch has declined, probably under the influence of the renewal of active competition. Tin crystals are unchanged. Zinc dust is stronger.

ACETATE OF SODA.—Leading producers maintain 4¼@4½c, according to quantity, but no large lots are available, and some difficulty has lately been experienced in meeting current requirements.

ACID PICRIC.—Nothing new has developed as to next year's terms, and spot conditions are without particular interest, but values show no abatement from 22c. for ton lots up to 28c. for single barrels.

ALBUMEN.—The sources of supply for the Chinese and Russian varieties of egg albumen are reported to have almost exhausted their stocks of the recent crop, and higher prices have already been named for the production of this fall, which may not be available for delivery before next spring. Importations of the yolk are zealously restricted, and the government's ruling against the entry of albumen treated with chemical preservatives has necessitated the compliance of shippers to a higher standard in preparing their goods. The spot movement continues well up to seasonable expectations, with values sustained at 48c. for Chinese duck to 65c. for the choicer grades of Russian hen egg. Quotations for blood albumen remain at 20c. for domestic to 27c. for select imported.

ANILINE OIL AND SALT.—The week has brought no change of moment to the situation, and the market reflects a good measure of stability, chiefly through the sustained position of primary quarters. As noted in late reports, goods are available over next year at about ½c. concession from those prevailing on spot at 10@10¼c. for oil and 8¾@9c. for salt.

ANTIMONY SALTS.—The market is especially strong for 47 per cent., and 11½c. is generally considered an inside quotation. For 65 per cent. 13½c. is said to be available and 75 per cent. is quoted at 15@16c.

BICHLORIDE OF TIN.—Competition continues keen, but there is no further change to note since the recent decline to 9¼c. for 45 deg. and 9¾c. for 50 deg.

COCHINEAL.—The market has been more plentifully supplied by late arrivals, but some of these lots have been absorbed into ready consumption and the balance, consisting chiefly of the gray black variety, are held under a close control. All descriptions are maintained at 48@50c.

CUTCH.—We are advised that a limited quantity of mat is available at 4½c., but the interest of the trade is centered more in boxes which are held at 5@7c.

DEXTRINE.—The market for corn dextrine has been unsettled by an unexpected break in values for corn starch, due to the renewal of powerful competition, but as yet prices for dextrine are unchanged from 2.55@2¾c., the lower figure being for carload lots. Imported potato dextrine maintains a steady position with quotations sustained at 6¼@7½c.

GAMBIER.—Another quiet week has prevailed, and while there is no appreciable change in the position of the market, the easier tone of the shipment position is evidenced on spot to the extent of checking confidence in any early improvement in values. The African Prince's goods have been well disposed of, late sales from dock having been made at 4c. The Kennebec is now due with a comparatively small cargo, from which small offerings have been reported. While 4c. is the prevailing quotation for shipment, we are advised that business has been done at a concession. Lately stored goods are obtainable at 4¼c. but up to 4½c. is asked for stuff of older storage. The visible supply from Oct. 1 to Dec. 1 is placed at 30,500 bales, against 17,600 bales for the corresponding period last year. The consuming deliveries during the first nine months of this year amounted to 112,000 bales, against 99,000 bales for the same period in 1904. The shipments to Atlantic ports from Jan. 1 to Oct. 1 aggregated 102,000 bales, an excess of 24,000 bales over the total during the same interval last year. Other details will be found on the editorial page.

INDIGO.—The strong tendency of the markets abroad for natural is reported to be fully maintained under the unfavorable crop prospects, but the manifestation of spot buying interest is not keen enough to occasion any appreciable change in values. The synthetic product is sustained at 18@20c., as to quantity and terms of sale, and some contracts have been entered for next year at this basis.

NUTGALLS.—Blue Aleppo galls are available at 17@18c., and quotations for shipment from Bagdad would seem to offer justification for a maintenance of approximately this basis. Late arrivals of Chinese galls have been largely absorbed into consuming channels and holders continue firm at 14@14½c.

PRUSSIATES.—The 14c. quotation remains in effect for yellow prussiate of potash on spot, and while concessions from this figure are being granted for next year's requirements, the outlook is generally regarded as favorable for a well sustained market during the balance of this year.

STARCH.—Contrary to general expectations, the market for corn starch has experienced a material decline of 15 points, establishing quotations at 1.80c. in bags and 1.95c in barrels for pearl. The renewal of active competition is undoubtedly the factor for the break, nothing in the position of corn or the state of the demand offering any suggestion for a lower basis.

SUMAC.—The market is assuming a more satisfactory position, with the tendency of values toward the level that has of late been maintained by holders who insisted that pure sumac could not be obtained below their values. Cable advices to a leading dealer this week reported a firm and active market in Palermo, and the check to adulteration is believed to be gaining force. On spot we find nothing of high test goods in evidence below $45, but some of the No. 2 grade is available at $42.

TAPIOCA AND SAGO FLOUR.—Comparatively little movement is to be noted in either description, but the market is well sustained, especially for the former, which is held at 1.85@2¼c. for ordinary and at 2½@2¾c. for the higher grades. Values for sago flour range from 1¾@1⅞c.

TIN CRYSTALS.—The effect of the keener competition is without further influence on values, which remain at 21@22½c., as to style of package. Had the agreement between leading dealers remained in effect, the position of the metal market would probably have warranted the maintenance of the basis that prevailed before the break last month.

ZINC DUST.—Higher prices have been named for shipment, bringing the cost to import at 5⅝c. This value is possible on spot in a limited way, and it is also named for arrival.

(Special Correspondence to the Reporter.)

A New Enamel White Case.

Washington, Oct. 13, 1905.

The Treasury Department has been notified by Mr. Kemp, special counsel for the government before the Board of General Appraisers, that a new test case to determine the proper classification of enamel white will be taken up for hearing in Cleveland on October 17. U. S. General Appraiser McClelland will go to Cleveland for the purpose of holding the hearing, and Mr. Kemp has requested authority to be present to assist the local customs officials in the proper presentation of the government's side of the case. Through the co-operation of the National Paint, Oil and Varnish Association, a number of prominent representatives of the trade will go to Cleveland upon the adjournment of the Chicago convention in order to give testimony as to the character of the goods.

The new test case will be selected from thirteen protests covering so-called enamelette, imported by the Vanderink Company, of Cleveland, Ohio. Samples of these importations were secured from Cleveland some weeks ago and submitted to Secretary Drake of the National Paint, Oil and Varnish Association, and subsequently were analyzed by the chemist at the port of New York. Both these authorities pronounced the goods as identical with enamel white and enamel paints, and as containing such quantities of varnish as to add materially to their cost of production. The addition of this varnish, it is claimed, operates to carry the product out of the general category of paints, dry or ground in oil, and into the class covered by paragraph 58 of the Dingley act, which embraces "all paints, colors, pigments, etc." * * * ground with solution other than oil," dutiable at the rate of 30 percentum ad valorem.

The Treasury Department will authorize Mr. Kemp to go to Cleveland and will do everything in its power to expedite the hearing and final determination of this controversy in the hope of establishing the contention that enamel white and enamel paints are entitled to the rate of protection extended by paragraph 58.

In this connection the department has taken action of much importance with respect to the decision recently handed down by the Board of General Appraisers in G. A. 6144, on August 30, involving the dutiable classification of certain "enamel colors" containing lead, sometimes used in the ornamentation of china and glassware. The merchandise was returned by the appraisers as "colors," and was assessed for duty at the rate of 30 per cent. ad valorem under the provisions of paragraph 58 of the tariff act. The special reports of the appraiser set forth that the merchandise "consists of various enamel colors used in decorating porcelain and glass." It was claimed by the importers that the merchandise should have been admitted to free entry under the provisions of paragraph 564, or, in the alterna-

tive, if not entitled to such free entry, with duty at the rate of 2⅞ cents per pound under paragraph 51 or 55, or 3¾ cents per pound under paragraph 52, or 4½ cents per pound under paragraph 54, or at 25 per cent. ad valorem under paragraph 113, all of said act."

In ruling on this case the board held that the sole question to be determined was whether the merchandise was dutiable at 5 cents per pound or 30 per cent ad valorem, and expressed the opinion that the language of paragraph 54 for colors "when not containing quicksilver but made of lead or containing lead" was more specific than that of paragraph 58 for "paints, colors * * * not otherwise especially provided for," and must control in determining these issues. The claim of the importers that the merchandise was dutiable at 5 cents per pound under paragraph 54 was therefore sustained.

This decision of the board was eminently satisfactory to the importers, but caused the domestic trade considerable uneasiness lest it might have an adverse bearing upon the new test case to be brought in the enamel white controversy. As was recently pointed out in these dispatches, there is a clear distinction between the merchandise in the two cases, but the Treasury Department has taken action greatly improving the position of the enamel white case by directing the collector of customs at New York to appeal from the decision of the board with regard to the china and glass colors referred to. By applying for a review of this decision in the courts the department prevents the importers in the enamel white case from claiming that the board's decision regarding china and glass colors has been acquiesced in.

Venezuela Concession to Make Glass.

Under date of August 25, 1905, William W. Russell, esq., American minister at Caracas, advised the Department of State in relation to a concession for the manufacture of glass and crystal granted by the Government of Venezuela to Carlos Zuloaga. The contract, which was approved by President Castro on August 14, 1905, will remain in force for fifteen years. The principal provisions are as follows:—

Article 1. Carlos Zuloaga binds himself to establish one or more plants for the manufacture of articles of glass and of crystal in the place or places in the territory of the Republic which may be chosen for this purpose. The first plant established must be mounted and in operation within two years subsequent to the date on which this contract is approved by the National Congress, save and except delays caused by the unforeseen and unavoidable circumstances, which must be duly proved to the satisfaction of the Federal Executive.

Art. 2. As an official protection to this industry, entirely new in Venezuela, the Federal Executive makes the following concession to the party of the second part:—The exclusive right to operate said industry in the Federal district and in the State or Federal territory where the plant may be established, during the existence of this contract; the right to make use of the prime materials found on the lands of the nation; the right to extract from the territorial sea water the soda and sulphite of soda necessary for the manufacture of glass and crystal in his plant or plants, free from all taxes; the right to import, free of taxes, for one single time for the plant, and for each one of the plants, which the party of the second part may decide to establish, machinery, apparatus, instruments, materials, and utensils designed for the installation and working of his plant or plants; in each importation all legal requisites must be fulfilled; the plant or plants which may be established, as well as the products thereof, are exempt from all taxation or national contribution created or which may be created during the existence of this contract.

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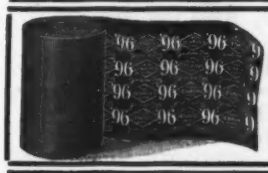

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